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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY. | *The only Newspaper devoted to the Lumber and Timber Industries published in Canada* | SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., JANUARY 1, 1885. NO. 1.



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TESTIMONIAL.

IRA GOULD & SONS, CITY MILLS, Nov. 18th, 1884.

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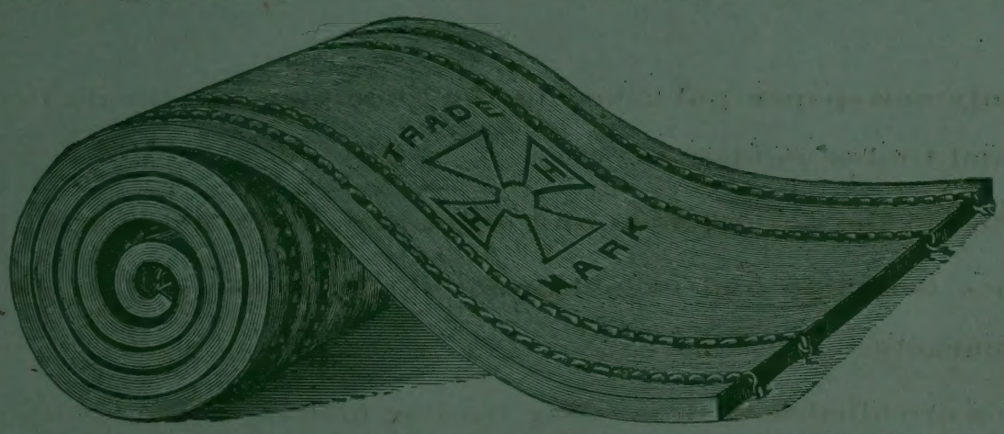
Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




TESTIMONIAL.

PROV. BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

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Supt. H. S. & H. N. Dept.

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## THE APPLICATION OF SCIENTIFIC & PRACTICAL ARBORICULTURE TO CANADA.

PAPER BY PROF. BROWN, OF THE GUELPH AGRICULTURAL COLLEGE.

Is there any country whatever that has made an eminent agricultural history and does not now complain of want of trees?

Advanced nations are not discussing the worth or worthlessness of trees in their rural economy; they are considering how best to secure the fullness of the value thereof in all their bearings. In doing this much serious consideration is necessary. It would be very unwise for any country to rush into extensive tree planting without a clear idea as to how the work should be begun, carried out and maintained. It is my purpose briefly in this paper to show what Canada can do in the scientific and practical application of arboriculture, and before handling the subject as a forester, allow me to submit some general views.

Canadian forestry will have no place in all its scientific and practical value until one of two things be accomplished: One is the conviction on the part of her farmers of the necessity of conserving and replanting, therefore, their education up to these; and the other is the power by Government to resume parts of the country for conserving and replanting. Both will be difficult. The former would be the slower but eventually the most thorough because of self-interest; the latter would be more immediate and possibly less efficient, practically, though scientifically better applied. No large number of various interests could be so well arranged as by a company, and therefore Government, as a company, will have to become foresters in all the many details of the profession.

Much of our indifference in this subject arises from the common idea that the planter cannot himself personally hope to receive all the benefits from the conservation of the present trees, and particularly from replanting. American returns, to the American, must be smart, strong, and undoubted; the idea of permanency in the long after years does not concern us so much as now. In Europe it takes a shape that may never be realized here, because of one thing—that one thing is large proprietory, the possessing within one man's power all the area and class of soil suitable to profitable production on a large scale, so that even that one man can employ officers and men in such number as make profits certain. Cultivated Canada meantime is so sub-divided as to preclude all idea of sufficient massing of woods to receive equal results with Europe,—but the day may come, and meantime progress must be made otherwise.

I believe it it the experience of the world, that more difficulty, in various forms, is found in reclothing with trees where trees grew before, than it is to plant, not replant, a country for the first time. There is not only the practical fact of succession of cropping in its scientific and natural bearings, as similarly realized for example in the products of the field, but the more serious one of the indifference of those who cut the first crop. Most of us think of trees as means of shelter, under several forms. We like shelter for buildings, shade for ourselves, shelter and shade for animals in the field, and shelter for farm crops. These alone would make up a large value in any district where required, and would justify all the cost and subsequent attendance. Yet we have another aspect of the question that takes an equally strong place in our regard: *Climate* is not alone a matter of great outside causes, but one intimately related to local influences, among which trees are pre-eminent. We have no time to show how temperature, rainfall, moisture, and evaporation are directly influenced by a small or large surface of trees, and how, therefore, water is largely in the hands of trees for local distribution. This second duty of forestry as a science and practice would even seem to swallow up the previous question, and is consequently inducement alone to its prosecution on our part. Were neither of these sufficient, however, to convince, the third great reason for tree cultivation will surely convert even the most American amongst us. It is no matter of doubt, under average conditions, in any country, that tree culture is more profitable as a crop than its own agriculture, year by year. This position is not open to question, but clear and marked in all experience where age has given time for proof. The area of trees in Canada is not an unknown thing in the older districts, and it is not true that it is poorly wooded in comparison with other countries. The United States can show twenty-five, and Canada nearly fifty per cent. of the cultivated districts as still under trees. This is possibly larger than any other continent, if we except the northern part of Europe, where agriculture is necessarily at a discount, and where forest is practically untouched. The cause of our discontent then is not want of forest per nation but its regular distribution to subserve all the needs of the nation.

The existing condition of our forests is the very first consideration in this enquiry. Outside of the lumbering interest, which of itself is simply a taking without system, there is no enclosing, preserving, caretaking, or conserving in any sense except the right of individual ownership, some of whom do act the forester, but nationally there is nothing recognized. The average "bush" of North America is a beautiful sight and yet a sad one. The artist must revel in its variety of form and foliage, but the fighting for place, the smothering and rotting for want of light and air can only be estimated by those who are scientifically and practically foresters. I do not mean that our forests in every case should be managed similarly to those in Europe, because much of our best timber requires very different conditions, but similar principles ought to guide our management.

There are really no figures to give as to the extent of Canadian forest, either as to gross area or special kinds of timber The small map recently issued by Dr. Bell, of our geological survey, gives a good idea of the northern limits of the principal trees, but, of course, it cannot help in either of the particulars named. As the country, with the exception of prairie, was originally all forest and as we have cleared about 25,000,000 of acres for agricultural purposes, it may be said that the whole country is still under trees with these exceptions. What the extent is to a million acres nobody knows, nor do a million acres one way or the other affect our subject.

We have four distinct fields of operation in the future of Canadian forestry: 1st. The untimbered lands such as prairie. 2nd. The older cleared portions. 3rd. The recent forest settlements, and 4th the untouched forest. Each of these will require different methods as to conserving, clearing and replanting, although all will be subject to one grand system of operations. To submit details now would be unnecessary when the object is to impress principles.

But yet another aspect of the question is the requisite proportions of tree surface to that under farm crops. What should it be? This is just one of the things that we do not know and that we are not likely ever to know as a point for general practical guidance. When I had the honor of addressing the British Science Association, at Dundee, in 1867, and at Norwich, in 1868, upon the claims of arboriculture as a science they knew little upon this point in a country possessing greater physical distinctions than Canada. The conditions are so various as affected by climate, altitude, latitude, aspect, soil, sea or lake neighborhood and vegetation, that no possible number of observations in any length of time could say how much for one district or so much for another. However, men do come to realize through science and practice —practice especially—that a farm or district needs the protection in certain places, and thus a country could easily be reclothed to the extent required for such shelter, if not for regulation of climate and other considerations, to which we will soon refer. The point then of immediate shelter is within everybody's knowledge, and needs no scientific guidance, and I may here say no governmental spurring. But the greater field of climate as an unknown one practically in this relation, is more a national problem, and still very much a scientific inquiry, and what it will have to say in regard to the proportion of trees to farm crops no one can tell. Of course if men disregard everything but the direct profits from trees as a crop upon land, another century may actually find some countries going back to the days of too many leaves and too little arable. Viewing trees in all their relations I am of opinion that upon an average of conditions in Canada, one-fourth of the surface should be covered by them, and as this is just one-half of what we have at present all over the forest districts, there rests the apparent inconsistency of wanting to conserve and replant all the while that we possess double what is required. This brings out the fact that it is the *irregular distribution* of tree surface in our case which gives trouble,—that some parts have more than required, and others have been overcleared.

As the subject grows upon our attention, we are next concerned with what parts of the country should be conserved or replanted, and in this part of the study it is obvious that our views cannot be confined to single farms or even special sections. Referring as we must to the great overruling influences, as previously indicated, we have to deal with geographical features that may embrace thousands of acres that have to be subserved with one or more massing of trees. Just where to conserve or replant, how much on the spot or spots, so as to gather and dispense all the virtues that trees are known to possess, is the great problem of the future. To say that we should only replant our less valuable soils is nonsence, though apparently sensible enough from an agricultural standpoint; that high lands should be conserved or reclad as against lower parts is largely true, though not generally applicable, and that conserving and replanting must go hand in hand and take place anywhere as found best through experience, is correct in every sense.

Following this view of the subject there is naturally that of suitability of certain kinds of trees for special purposes. We have soils and climates wherewith to do almost anything in tree life from the pine of the far north, which luxuriates in an apparently bare rock cleft, to the walnut of the south, that must send its carroty root several feet into a rich soil. The preparation of the soil, methods of planting, including fencing, draining, knowledge of enemies and friends in nature, and all the management throughout, in order to attain the highest results are not for our time on this occasion.

In connection with this branch of the subject, however, allow me to present to the Association some copies of a list of trees which I use in teaching at our College, and classified similarly to those in Loudon's work.

And now for the more special purpose of these notes,—and in order to place myself properly with the Association, it is fair, as a matter of business, to note that what I am advancing is founded on British experience, beginning in

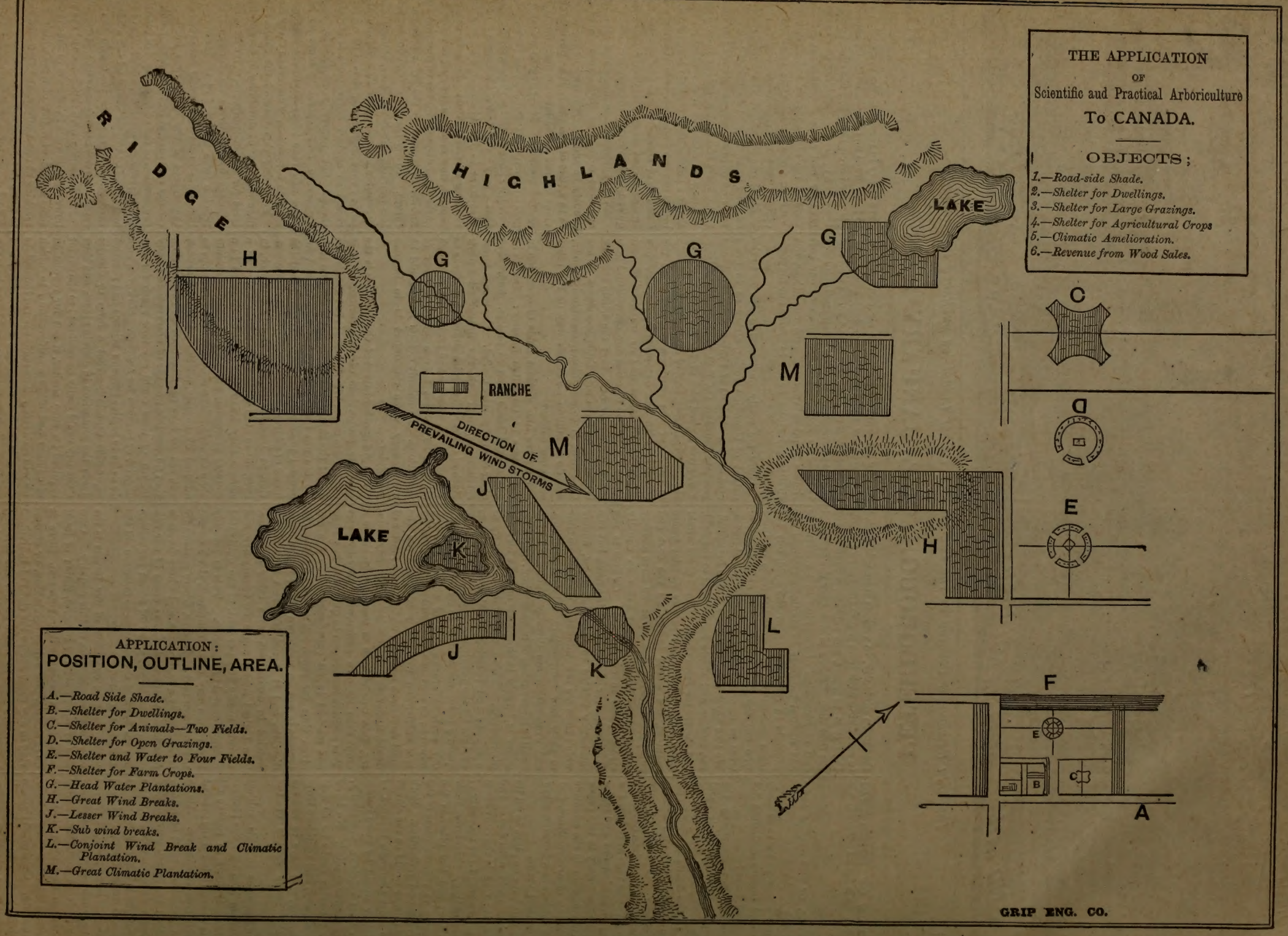


DIAGRAM TO ILLUSTRATE PROF. BROWN'S PAPER ON ARBORICULTURE.

1854 and ending 1870, during which time I had the immediate control of the formation, the planting, and subsequent management of something like twenty one millions of trees, principally on the Seafield estates, in Banff and Invernesshire, and the Invercauld estates in Aberdeenshire.

In order to success anywhere there must be put in operation, upon a system, such a combination of the scientific and practical knowledge that at present exists as shall most likely bring about the fullest realization of tree value. That system is universal in its application, however small or large the scale, or however varied the conditions. Whether we pull down or rebuild, or make entirely new, the system will apply, and as it is by entirely new work that any system is best exhibited I will ask you to go with me to the Prairie. The subject then is almost an entirely treeless one, with an undulating, but generally uniform level surface, an occasional ridge, a lake, a river, cutting deep through the unshaded land, and bounded on the northwest by high lands as I have outlined on the map. Here, men need never hope to gather wealth of agriculture in all its branches without the help of trees. I think there exists nowhere in the world an example of *universal farming reliability* unattended by trees. I see no great future for Manitoba and our Northwest unless extensive systematic forestry precedes. The sooner our Government realizes this the better. All methods of farming, railway and water communication, minerals, natural grazing, or any other form of good things will never "make" a country without trees. We are not theorising in this. *A peopled agricultural country is an impossibility without trees.*

In our treeless region, therefore, experience has made us acquainted with a variety of wants that can be subserved by trees, and science points to more. Together then they make up a bill that may be thus summarised :

1. Roadside shade.
2. Shelter for dwellings.
3. Shelter for cultivated farm crops.
4. Shelter for open natural grazings.
5. Shelter for enclosed grazings.
6. Head water conservation.
7. Wind breaks.
8. Climatic amelioration.

Either of these would of course serve more purposes than that implied by its name, but a full illustration of the system requires a form for each.

Now this map professes to show all these : from the single shade tree up to the great climatic plantation, the area or district embraced and the size of each of the classes would be subject to requirements, from one acre to as much as 1,000 acres each ; the system or principle is not affected by size, but, position and form, or outline, are prime factors.

Size would be regulated by the particular physical features of the district and the object in view ; form by prevailing winds as well as the particular object and partly by physical features.

In our prairie example on the map we have a farm of 160 acres made up as follows :

| | | |
|---|---|---|
| Timber | 30 | acres |
| Cultivated | 125 | " |
| Orchard, garden, buildings, roads | 5 | " |
| Total | 160 | " |

The fields and roads lie northwest and southeast, and therefore also northeast and southeast. By preference the buildings are situated on the southern angle of the farm at a junction of a a concession and a side road. In the first place the roads are lined with shade trees, which serve as shade to animals in some of the fields as well. Then the dwelling house and orchard while open to the southeast, south, and southwest, are shaded by ornamental standards and lined on the north and northwest by trees. This tree line may be called the 2nd sub-wind break of the farm. The barns with two small fields or paddocks, are also open to the south and protected from the colder winds by a narrow belt of timber in positions similar to the others. The six other fields are, in the first instance, sheltered by a broad belt all around from the east, via north, to the west, capable of breaking and mellowing the whole farm for cropping. But, for live stock, under such circumstances, and with twenty acre fields it is necessary to provide other shade and shelter. This is best supplied by what I have proved in actual practice both in Scotland and Canada. I know of no better form and position of a shade and shelter clump of trees than that illustrated in Fig. C., and the position of which is also shown in our farm example. It serves two fields, and from whatever direction the wind comes, or the sunshines, the animals can find a retreat in either field. You cannot shoot a straight line across this clump and not find a safe corner.

Then, in the adaptation of one form of shelter to four fields (Fig. E) is neat and serviceable, and when supplied with water in the centre is a very valuable acquisition to pastures. In the case of extensive open grazings, the circular belt (Fig. D) is also best for various reasons. It resists and breaks wind storms better than other outlines ; it is less liable to damage by cattle or wind, is more compact and affords more outside shelter. There should be two passages not far apart and facing south as much as possible ; one passage is not enough with a large number of cattle going and coming, and provision is necessary for a stack of hay in the centre.

These are what may be called the purely agricultural divisions of arboriculture, and are definite and practical enough, upon which little difference of opinion is likely to arise. In what remains of my subject there may be not only difference of opinion in regard to details, but considerable difficulty in satisfying that anything more is needed than what has already been sketched. It will be said : As each farm has its proper amount of shade, shelter, fuel supply, and even wood revenue otherwise, what more does the country require ?

I have not seen in any work on rural economy that it is as much the duty of nations to administer their arboriculture as their laws of health. Then while everyone acknowledges that without the proper measue of trees there cannot exist the proper health, political economy, science, agriculture and all society, is equally interested in this question, and as I have already indicated its national aspect, it is only necessary to point out how more than the immediate farmer's work is required.

Over a great plain, such as our prairie, where storms rage unchecked, where rains come and go irregularly and uneconomized in any form, and where sunshine is unmellowed, it is necessary to establish agents for the purpose of subserving these and other climatic purposes. Assuming that all the country were planted to the extent already shown for immediate farm use, there exists nothing in particular spots,—no plantations exactly placed to conserve head water streams, no great and small wind breaks, and no great climatic plantations,— the agents respectively.

On the map these are shown in position, proper outline and extent. *Position* is regulated by elevation and neighborhood of other physical conditions, such as water surface, and high land ; *outline* is regulated by direction of prevailing winds, conformation of surface, and partly by public roads, while the *extent* is directed by the indefinately known influence that a certain body of trees possess over climate ; climate being understood as distribution of rainfall, evaporation, natural drainage, and temperature.

I am aware that we cannot reason on this from any clear or precise experience, and are driven to draw conclusions from actual facts, and there seems to be no doubt that it requires a certain massing and kinds of trees to ameliorate climate, narrow strips and clumps being insufficient, or incapable of doing so.

Head water plantations, as implied in the name, must surround, or be in the immediate neighborhood of, sources of streams, and have an outline to nurse them, with area consistent to the importance of the source. The circular form is good and applicable to the two springs at G., or it may be oval as illustrated at the mouth of the valley, and would also take the position and area of that at the small lake.

Great wind breaks being meant to fend the smaller plantations as well as particular districts, have to be carefully outlined, of very considerable extent, and must command an exact position. In the example of H. on the ridge, which is designed to break the storms from the adjoining ranch, several points are noticeable : The land occupied by the plantation is within one block, or range of roads, and therefore does not encroach ; it occupies also part of a ridge that generally is less valuable for agricultural purposes, it is formed to cut or feather the storms that prevail in the district—south west by west—a point in forestry of very great importance indeed ; it is massive or in sufficient body to resist and break, and it is so situated main force of the storms. It may be remarked that it would be better to extend the plantation eastward upon the point of the ridge, this I have avoided in order to make the example more difficult.

The other great wind break is of a different form, while serving a similar purpose. It parallels with the public roads, makes no awkwark corners for cultivation of adjoining land, faces prevailing winds with the exception of southeast end, and will protect a large area of country.

Lesser wind breaks, as at J., are placed where, either by the form of the country on the prevailing wind side, or where a larger break is difficult to establish. The example on the east of the large lake exhibits both. Position here is very important and it will be observed that outline and area are arranged to receive the storms across the lake, break them, and yet yield to them.

Sub wind breaks are easily arranged and can take various forms and sizes to suit conditions as at K.

Another kind of plantation, as already referred to, is that which I call climatic,—the objects of which have been explained. Their position in a country among others is not so easily reasoned, either scientifically or practically. Area is obviously of more consequence than form, because it requires a great field of leaves to do what leaves are said to do in climatic amelioration. M. with eight sides, and the other with four, are designed as concentrated masses adapted to Canada, and of course in their case, more than other plantations, the cost of establishment would be less per acre, and would also better meet the item of revenue. L. is an example of a conjoint-wind break and climatic plantation.

Canadian forestry, whatever its future, will never realize all it should unless hand in hand with science.

ESTIMATE OF FINANCIAL POSITION OF A MIXED PLANTATION OF 100 ACRES IN CANADA.

(*Manitoba and the Northwest particularly.*)

REVENUE.

| | |
|---|---|
| 1st Thinning when 15 years old, 3,000 poles, 20 ft long at 3c | $ 90 |
| 2nd Thinning at 18 years ; 8,000 trees, at 5c. | 400 |
| 3rd Thinning at 25 years ; 15,000 trees, 12 inches diameter at base, 40 feet, at 30c. | 4,500 |
| 4th Thinning at 35 years ; 25,000 trees, 20 inches diameter ; 50 feet, at 50c. | 12,500 |
| 5th Thinning, at 40 years ; 30,000 trees, 22 inches diameter | 22,500 |
| 6th Thinning, at 45 years ; 21,000 trees, 25 inches diameter, at $1.00 | 21,000 |
| 7th Thinning at 50 years ; 18.000 trees, at $1.10 | 19,000 |
| Gross Revenue | $ 80,000 |

10,000 trees failed, leaving 20,000 trees, or 200 per acre as permanent crop.

EXPENDITURE.

| | |
|---|---|
| 1,000 rods of fence, at 75 cents | $ 750 |
| Drainage of portions | 250 |
| 150,000 trees, 1 year seedling, 1 year transplanted, at 1 c | 1,500 |
| Planting same | 575 |
| Freight on trees | 150 |
| Original cost | $ 3,225 |
| Per acre.—$32. | |
| Replanting failures for three years, 5,000 trees | 100 |
| General attendance, up-keep of fence, &c., for 15 years | 300 |
| Gross cost | $ 3,625 |
| Per acre until revenue begins—$36. | |
| Cost of thinning and hauling to roads | $ 13,100 |
| General superintendence and incidentals for 35 years | 3,500 |
| Gross expenditure | $ 20,225 |
| Balance being clear revenue | $ 60,565 |
| | $ 80,790 |

No allowance is made for interest on outlay and rent of land, on the one hand, nor for interest on revenue, and value of grazing for 25 years, on the other hand. Neither is credit given for climatic amelioration, not for value of permanent crop.


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*All Coffees Packed by us Guaranteed Strictly Pure.*
*The Wholesale Grocers of Canada are our Selling Agents.*
*Order our Coffees through them.*

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## THE TIMBER TRADE.

A despatch from Quebec dated Dec. 12th says:—Messrs. J. Bell, Forsythe & Co. have just issued their trade circular for 1884. It shows that the arrivals of ocean steamships during the year 1884 were 240, representing tonnage of 427,834 tons, a decrease of 29 compared with previous year; of sailing vessels from sea in 1884, 499, compared with 672 vessels last year. These figures indicate that the with reference to the ranch as to shelter from the timber and deal trade of this port for the past season has been much more limited in volume than usual. A great falling off is also noted both in supply and export. The clearance last season were 356; in 1883 the returns gave 487 vessels. Notwithstanding this greatly reduced export, we can discern no improvement in the British markets. No revival has taken place in shipbuilding which takes so much Canadian timber. The trade between Canada and South America is increasing. The shipments in 1884 amounted to about 37,000,000 feet b. m. from the St. Lawrence, The stock of white pine and waney board on hand is slightly over the average of the last five years. The quantity of square timber measured is unusually light, comprising as it does some rafts now wintering on the Ottawa. Shipments have been exceptionally small and the stock wintering is rather over the average of the past years. Apart from some 12 to 14 rafts manufactured during the winter of 1883 and 1884, and which have been held back on the Ottawa, there will be but a small supply to come from that quarter next season, as the winter's production, according to the last estimates, will not exceed a half million feet altogether, including a proportion of waney boards, quite sufficient, however, for all requirements, and the manufacturers are acting very prudently in curtailing their operations to such an extent. There has been a decrease in shipments at this port while Montreal has increased. Owners refuse to charter their vessels to Quebec on account of certain bylaws of the Quebec Ship Laborers Society.

## THE LUMBER INDUSTRY OF MAINE.

There was the time when Bangor and the Penobscot Valley, and in fact all Eastern Maine, depended on the lumber business as the almost only source of revenue. During the last ten years there has, however, been a great change. The people have turned their attention more to tilling the soil, and our industries have become more diversified. This has been a change, we believe, for the better; for the best interests of this part of Maine. Still the fact remains that the lumber business is the one great industry of 'way down east, and it is a matter of general concern to know whether the business is on the decline or increase.

In a general way it may be said that it is impossible, without giving one's entire attention to the matter for days, to arrive at more than a rough estimate of of what is to be done in the lumber business the coming season.

The amount of business done in the woods the coming winter is, undoubtedly, to exceed that of last year. Last season something like 100,000,000 feet of logs came to this market. Next season, if it is favorable for "driving," more than that will come to our booms. That is to say, in general terms, more logs are to be cut and hauled this than last winter. It will, upon the whole, not cost so much to get logs to the landings this year as it did last season. Provisions, with the exception of pork and one or two other articles, are not so high and wages are a little lower. Teams can be hired for about the same as last year. The wages of men upon an average are about $15 per month.

The past season has not been a favorable one for those who have manufactured logs on the Penobscot. The first of the season logs sold at fair prices. The prices some think were not natural, and some contend were caused by parties who tried to bull the market. Manufactured lumber has not sold at prices that were very profitable. One gentleman informs the *Commercial* that this has been the dullest season he has known n the lumber trade.

Everyone n the business seems to think there is a bright outlook for the coming season, and large preparations have been made for cutting timber.

In speaking of the amount of timber which was brought into the markets last season we do not include the vast amount of small stuff which comes to this city by rail.

The stock on hand at the mills at the present time is about 27,500,000 feet. The amount of logs sold not is about 2,500,000. By the last we mean the number of feet unsold at the booms.

In giving, as we do below, estimates of the amount of logs to be cut the coming season it should be remembered that it is only in the rough. Some firms may be estimated too low others too high. Many of the small firms are not considered at all. There are many causes which prevent a correct estimate of the business to be done in cutting lumber to be arrived at. On account of heavy snow or from the fact that he has not had so good a chance for cutting as he supposed, one man instead of getting to market 3,000,000 feet, as he originally planned, may not get more than 2,000,000; or perhaps a firm may haul more than originally planned. So that figures which are given are in one sense simply a matter of conjecture.

On the west branch of the Penobscot the coming winter Con. Murphy will employ 80 men and 20 horses, and will haul 3,000,000 feet; Rod Sutherland will employ 40 men and 12 horses and will haul 1,600,000 feet; Gilbert Davis will employ 25 men and 8 horses and will haul 8,000,000 feet; H. H. Perkins will employ 45 men and 10 horses and will haul 1,500,000 feet; N. G. Gould & Co. will employ 60 men and 15 horses and haul 1,500,000 feet; Spencer & Smith will employ 40 men and 11 horses and haul 1,400,000; John Loss will probably haul 1,500,000; Morrison & Hunting 5,000,000, Samuel White 1,200,000, and James F. Kimball 500,000 feet. In addition to the above, smaller firms will probably 2,000,000 feet more. Tracey & Co. of Calats, intend to haul 15,000,000 feet on the Wassataquork for F. H. Todd, of St. Stephens.

On the east branch of the Penobscot there will be as much or more lumber hauled than last winter. Among the large operators will be Perry, Rivers, E. W. Loveland, the Lawlar Brothers, J. P. Reed, Hersey & Son, and others.

Stratton, Engel & Gilman will employ 18 horses and 70 men, and will haul 3,000,000 feet, which will come out of the Piscataquis. Among others who will cut from 1,000,000 to 3,000,000 feet, which will come out of the Piscataquis, are Atwell & McLeod, E. D. Quimby, William Peters, Zeke Chase and Samuel Hodson.

On the Mattawamkeag there will probably be more logs cut than for several years. The largest concern is Ring & Webster, of Orono. They will probably cut from 10,000,000 to 12,000,000. Here as in other places it is impossible to make a summary which will be reliable. Among the operators on Mattawamkeag and tributaries are: E. W. Robinson who will employ 6 horses and 24 men, and cut 500,000 feet; R. A. Crocker, 4 horses and 16 men, 300,000; J. F. Webster, 8 horses and 35 men, 800,000; G. F. Stratton, 4 horses and 16 men, 300,000. Other small operators on the Mattawamkeag and tributaries will probably cut 3,000,000.

On the Passadumkeag waters there will, among others, be the following operations: Isaac Page with 8 horses and 32 men will haul 800,000 feet; C. C. McDonald, 10 horses and 40 men, 800,000; F. M. Cunningham, 1,000,000; N. Emery, 500,000; Foster & Tibbetts, 700,000; C. L. Hathaway, 500,000; other small operations, 500,000.—*Bangor Commercial.*

## HOT AIR ENGINES.

We are of opinion that hot air engines are of no use for driving wood-working machinery. In other establishments, where very small power is required, they are useful, as they can be worked with economy without skilled labor, and without danger of explosion. In hot-air engines of the latest construction the principle of working is as follows:—Atmospheric air is in the first place forced by an air pump into a retort or generator in which a fire has been previously lighted, the fuel used being coke or charcoal. The fire being well alight, the generator is hermetically sealed by means of doors. No chimney is used, in fact the use of such when the engine is working would be fatal, as it is necessary that the pressure to be afterwards utilized in the working cylinder should be retained within the generator. A thick fire-brick lining in the generator leaves an annular space between it and the outer casing. The air from the feed-pump is divided into two streams, one entering this annular space, whence it descends beneath the grate-bars and passes through the fuel, the other entering into the space or chamber above the fire. That passing through the fire gives up its oxygen and effects the combustion of the fuel, forming first carbonic acid, and subsequently carbonic oxide; that enteri[illegible] the chamber above the fire meets with the carbonic oxide and nitrogen and creates an intense heat. This heat tends to expand the air, but having no room to do so it becomes compressed; the pressure thus formed is the force used to effect the motion the engine. governor determines whether more or less air shall pass through the fire or into the space above; consequently according to the position of the governor the pressure of the air is regulated, and the fuel is consumed in direct proportion to the work being done by the engine. —*Timber Trades Journal.*

## THE CRAZE FOR WOOD CARVING.

Chatting lately with one of the most talented wood carvers in this country, says a reporter of New York city daily, I learned something of the whimsicalities of fashionable New York, and how clese Fifth avenue stands to workshop benches. This city, in fact all the country, went wild three or four years ago over carved woodwork. Plans for the Vanderbilt mansion gave an impetus to the mania. All the rich houses that followed the Vanderbilts within a year or so went quite as largely into carving. Walls, ceilings, door panels, everything everywhere was cut up into ambitious figures, copying nature and old art work. From Italy, from Switzerland and from France and Germany carvers of high rank were brought over here, found plenty of employment and high pay. Practically a new trade sprang up in New York forthwith. Three or four firms grew rich quickly. Cost was not considered by uptown fashionables competing one with another for distinction in their bric-a-brac homes. So ran the wave along to a year or two ago, when of a sudden it began to recede. Architects who may out orthodoxy for millionaire builders set themselves against this fashion, and houses that have gone up lately, or rather houses that have been planned within the past 12 months, look to decoration of a much milder type, almost plain and Quakeoish by contrast. Wherefore there are sighs in carving establishments, and lots of men, American as well as foreign suddenly find themselves without employment for their talents, and little hope for brighter days in the near future. Furniture houses that have been making goods to order, employing the most skilled carvers and securing the fanciest of prices, have wheeled squarely around, said good-bye to their imported artists, and gone into the manufacture of goods for the trade.

### The Trade in Wooden Shoes.

A factory has just been opened at Danbury, Conn., for the manufacture of wooden shoes. The proprietor is a German, and for some time has supplied the brewers in New York with wooden shoes for their employes, and the demand has become so extensive as to require much greater facilities and the aid of steam power. The shoes have the improved curved round toe of the old Dutch style and are heelless. They are made wholly of the wood of the butternut tree, and while impervious to water are also very light. They have been introduced into all the hat shops for the protection of the feet of operatives from the wet floors while at the same time they are very easy and rest the feet.

Six of the voyageurs who went from Canada to Egypt have died since leaving this country, five having been drowned in the waters of the Nile.

## RESULTS OF FOREST FIRES.

An exchange, speaking of the peculiarly destructive nature of forest fires, thinks few people realize how serious a calamity these fires have become. Already in the most thickly settled parts of the country good working wood is becoming scarce and high, although there is often a glut of inferior grades, and therefore very low prices for them. The correspondents of the lumber journals report from almost all quarters that the demand for really good materials is generally in excess of the supply. The only hope for the future lies in economy of what we have, and in whatever will encourage those owning young timber to keep it and prune it and thin it out so as to bring it on to fill up the gap. But forest fires destroy an amazing amount of the precious mature stock—how much no one knows—but it is said by experts that the amount destroyed probably equals the amount cut. Now, we know that the sawed stuff (to say nothing of fuel and charcoal, ties, telegraph, and hoop poles, etc.) reaches an annual value of over $230,000,000 at the mills, so that, counting other forest products besides sawed stuff thus destroyed, it is, no doubt, within reason to say this waste, largely needless, is not less than $300,000,000 a year. But this is not all, and very likely it is not the worst. Such fires burn up a great amount of young growth and of seed, and in some cases even the soil itself is roasted to death, so that for a long time afterward it will not bear anything of value.

## THE PROSPECTS.

The *Northwestern Lumberman* says:—The tone of some of the letters which come to this office is not cheerful. More than one saw mill man has had a hard road to travel for the past two years, and some of them profess to see nothing better in store for them in the immediate future. Good luck comes in at our doors uninvited, sometimes, but usually the lot of a man is bettered by an endeavor on his part to better it. Concerted action on part of the mill men to reduce the output of lumber would result in the greatest good to the trade, and such conduct persevered in would make the lumber business in the Northwest profitable from the time there wore only moderate stocks on the markets until the last pine trees, commercially speaking, were felled. Why then should there be such haste displayed by the owners of pine timber to get rid of it in a time of depression? This is a question to which no good business man can give a reasonable answer. It has been estimated that the coal mines of Pennsylvania would furnish coal for the civilised world for a thousand years, yet when the markets are overstocked with coal, and the mining industry does not pay a reasonable profit the operaters suspend work. The sudply of white pine is not good for thousand years, but for twenty, say. What a short time twenty years is—only a the quarter of the number that the healthy man, whose habits are proper ought to live. Where, then, is the sense of such a rush to deplete the pine? The young or middle aged man can have no better property than these same forests, and the old man could leave no better earthly inheritance to his children than pine trees. We believe that timber owners are considering it in this light more than they did a few years ago. The spirit of conservatism is growing. The talk of the Saginaw valley manufactures of forming a monstrous syndicate means something, although such a syndicate may not be formed. Every resolution of the operator this winter to reduce his log cut will bear fruit, although such resolutions will often be smashed to flinders. It is plain that the lumbermen are reaching the point of realization. They are beginning to understand that every foot of lumber that is sold at a loss means so much that might have been profitably marketed had their business been well managed.

**"Delays are Dangerous."**

If you are pale, emaciated, have a hacking cough, with night-sweats, spitting of blood and shortness of breath, you have no time to lose. Do not hesitate too long—'till you are past cure for, taken in its early stages, consumption can be cured by the use of Dr. Pierce's Golden Medical Discovery, as thousands can testify. Sold by druggists.

### Northwest Coal.

ST. PAUL, Dec 18.—A fine seam of coal has been found at Crowfoot Crossing 800 miles west of Winnipeg, on the Canadian Pacific Railway. It is 14 feet thick, 150 feet below the surface and a anthracite of good quality.

### Burgulary in Mantreal.

Another extensive burglary occurred on Thursday morning in Montreal, a Jeweller's store within a stone's throw of police headquarters being entered, the safe blown open, and ten thousand dollars' worth of jewellery and eight thousand dollars in cheques carried off.

### $70,000 in Ashes.

MONTREAL, Dec. 17.—The tin stamping factory of Thomas Davidson & Co. was totally destroyed by fire this evening. The factory, which was a three-story building, was valued at about $30,000, machinery $27,000 and stock $13,000. Insurance $30,000. Among the companies interested are the Commercial Union, British American, Royal and Western. The fire throws 125 men out of work.

### A Powerful Shot.

SANDY HOOK, Dec. 18.—A shot weighing 152 pounds was fired from the Haskell multi-charge gun this morning with 116 pounds of powder. The velocity of the shot was 1,801 feet per second; elevation 8½ degrees: the range, 6,514 yards; the muzzle energy of the shot, 3,422 foot tons. This is the most powerful shot yet fired from this gun, and much exceeds that of any gun in the world of the same calibre.

### A Big Mail Robbery.

The mail that left Kamloops for Victoria was robbed between the point of departure and delivery of everything valuable. The sum total of the robbery amounts to $9,000. Two registered letters containing $4,000 in cash. The balance was in checks and money orders. The chief remitter was the post office department in money orders, which amounted to about $3,000. The postmaster of Kamloops, Mr. Venn, loses $500, and the estate of T. Spellman $4,000, mostly in checks, reference to which will be found in the advertising columns.—*Victoria (B. C.) Colonist.*

EAST of the Andes, and intersected by many great rivers, is probably the greatest and most valuable forest on the globe, and almost untouched by the axe. Mr. Thompson, who held the position of Consul at Brazil for some time stated in a lecture on his return, that in travelling on the Amazon he saw sandalwood trees that here would each be worth £1,000, yet of whose value the natives seemed unconscious or indifferent.

THE saw log cut on the Bonnechere River will be much larger this year than for past years. Messrs. McLachlin Brothers intend cutting largely on their limit recently purchased from Barnet & Mckay.

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh. Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1yl22.

"Yes; I shall break the engagement," said she folding her arms and looking defiant; "it is really too much trouble to converse with him; he's as deaf as a post, and talks as if he had a mouthful of mush. Besides, the way he balks and spits is disgusting." "Don't break the engagement for that; tell him to take Dr. Sage's Catarrh Remedy. It will cure him completely." "Well, I'll tell him. I do hate to break it off, for in all other respects he's quite too charming." Of course, it cured his catarrh.


# Man's Organism

Is the most complex work of the Creator, and when this complicated structure, so exquisitely wrought, is disturbed by disease, the most efficient aid should be sought from the most skilled physician—for the human body is too precious to be neglected. It becomes the question, then: "What physician shall be employed?"

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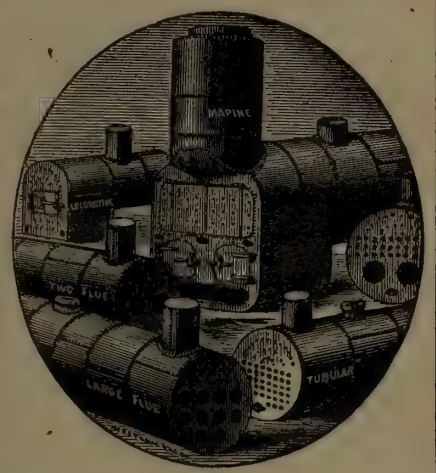


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS. SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., JAN. 1, 1885.*


KEID CARROLL'S planing mill, at Thornbury, Ont., was burned December 3rd; loss, $2,500.

MESSRS. Campbell & Co., lumber merchants of Lachute, near Montreal, have assigned, with liabilities of $60,000, and assets of $50,000.

FOUR thousand feet of lumber is already on the ground for the crib work of the breakwater at Fort William.

P. NESTOR is constructing a boom of large capacity on Rainy river, Rat Portage district, Ont., for W. J. MacCaulay.

PARTIES returning from the woods at Bay City, Mich., report that hands in the camps are receiving $7 a month.

C. B. FIELD will put 25,000,000 feet of logs into Houghton Lake, Mich., and M. Loughray will put in four million over the same logging railroad.

A WESTON & SON lost 500,000 feet of lumber, December 2nd, from the barge Wells, while on its way from their mills at Waiska bay, Mich., to Tonawanda, N. Y.

THE boiler in Plummer's planing mill at Jackson, Mich., blew up December 19th, instantly killing Albert Keyport, a mill hand, and severely injuring six others.

WAGES of men in the woods of the Chippewa, Wis., district show a discrimination in favor of married men, single men receiving from $12 to $15 a month, and married men from $15 to $20.

THE tie trade is lively at Pound, Wis., on the line of the Milwaukee & Northern railroad, on account of the demand coming from the rail road company.

SPLENDID shingle bolts are being delivered at West Branch, Ogemaw county, Mich., for $1.25 per cord. Five cents a piece for posts is paid by the railroad company.

A NUMBER of lumber shanties are in operation along the Kaministiquia, and men for the bush are in demand at Port Arthur.— *Winnipeg Times.*

A DESPATCH from St. Johnsbury, Vt., on Dec. 22nd says:—A foot of snow fell yesterday. This will start the lumber business and give many idle men employment.

A LOCAL authority estimates that the shrinkage of values has caused a loss to Muskegon lumbermen this year of over $500,000, and of wages to wage workers of $200,000.

COMPLAINTS of there being too much snow in the woods are scarce so far this year. In some swamps, however, the water had not frozen over deep enough before the snow fell, and it makes work difficult.

THE Hon. Perry Hannah, of Traverse City, Mich., gives it as his opinion that the input of logs this season throughout Michigan will be but about 50 per cent of that of last year. He says that the supply of men in the Traverse region is greatly in excess of the demand, though a small army is employed in getting out rock elm timber for shipbuilding purposes, there being abundance of this timber in that part of Michigan.

AMONGST other work which is being carried on in the Wm. Hamilton Manufacturing Co's foundry, Peterborough, is a boiler of stupendous size, for the steamer Maganetawan, owned by the Georgian Bay Lumber Company. The boiler has been in course of construction for some time and is now assuming a natural form. The construction of the boiler is under the superintendence of the foreman of the boiler making department, Mr. Richard Reeves, a man of thorough practical knowledge and high reputation. It is nine feet in diameter, consequently twenty eight feet in circumferenee. It is twelve feet long and made throughout of the finest dolzel steel. It has 147 smoke tubes and when completed will stand a pressure of 100 pounds to the square inch. This monster boiler is one of the largest of the kind ever turned out of any shop in Ontario, and is larger than any other turned out of this foundry. Its total weight, when completed, will be twenty-two thousand pounds.

## FORESTRY IN SOUTH AUSTRALIA.

Professor Brown, of the Ontario Experimental Farm, sends us the following notes on "Forestry in South Australia," where his brother is Government Conservator:

The Forest Department has been in existence for eight years, during which time there have been 150,366 acres enclosed or reserved, and dedicated to forest purposes. Of this extent not more than 30 per cent is under indigenous timber. The total revenue from grazing rents, timber licenses to cut, etc., since establishment, amounts to $223,580. Against this is a total sum of $233,615 expended upon the reserve during the same period; showing that although the works executed by the department have been of a reproductive and permanent character they have only cost the Government an actual cash disbursement of $10,000. Some 744,000 trees have been planted and are doing well; over 500,000 indigenous saplings in the open forest have been pruned and otherwise trained into the line of your timber trees. Some 100,000 young trees have come up and been established in the enclosures set apart for the reservation of the forests by natural regeneration, so that the department has to be credited with the fact of having added no less than 344,000 trees to the property of the country. From trees raised in the nurseries and given away gratuitously to corporations, district councils, farmers, and others, it is estimated that not less than 200,000 have succeeded. There are six fully equipped nurseries belonging to the department which are capable of raising 1,000,000 young trees annually.


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Permanenty or no pay. Our new and sure cure method of treating rupture, without the knife, enables us to gurantee a cure. Trusses can be thrown away at last. Tend two letter stamps for references, pamplet and terms. World's Dispensary Medical Association, Buffalo, N. Y


## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Dec. 9, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C.:—

308,982.— Clutch, friction —W. D. Brock, Milwaukee, Wis.

308,924.—Lathe—R. L. Peabody, Waltham, Mass.

309,103.—Log loader—F. F. Schofield, Ascoda, Mich.

309,056.—Saw mill, portable—A. J. Huber, Columbus Grove, Ohio.

308,893.—Saw swage—D. B. Hanson, St. Louis, Mo.

309,021.—Timber, machine for framing—W. J. Bley, Silver King, Arizona, Tex.

PATENTS ISSUED DEC. 16.

309,313.—Auger handle—W. A. Peck, Rowe, Mass.

309,288.— Chuck lathe—G. Birkman, New York, N. Y.

309,206.— Chuck lathe— A. F. Cushman, Hartford, Conn.

309,388.—Saw handle—H. W. Hawkin, jr., Brooklyn, N. Y.

309,448.—Saw, pruning—H. G. Emens, Ogden, New York.

309,341.— Stave dressing machine —G. J. Fritz, St. Louis, Mo.

PATENTS ISSUED DEC. 23.

309,578.—Poles, machine for bending carriage —A. G. Snyder, Piqua, Ohio.

309,550.—Saw—J. Ledward, Westerly, R. I.

309,646.—Saw—J. L. Purple, Oswego, N. Y.

309,763.—Saw filing machine—D. Chambers, Quebec, Canada.

309,533 & 309,534.—Saw tooth swage—J. E. Emerson, Beaver Falls, Pa.

## LIVERPOOL.

The *Timber Trades Journal* of Dec. 13th says:—The statistics published as customary at the end of the month are given at the end of this communication, and, as the termination of the import season is virtually over, although it is not accepted by the trade as actually closed until the close of January next, it will be of some interest to those whose business leads them to the study of the figures, which are an indispensable guide to the probable future course of the market.

The total consumption during the past month shows a very great reduction as compared with that of November last year, and these figures speak with greater force of the general and widespread depression of trade in this district than any verbal report could do.

The diminution in the consumption of Quebec square and waney board pine is very noticeable, and goes to prove in some degree how steadily it is being thrust out of the market by the better qualities of hewn and sawn pitch pine timber, such as is used for ordinary building and joinery purposes. At the same time we must not lose sight of the fact that this wood in common with nearly all others has failed to meet with the usual amount of attention, not withstanding the low prices at which it is selling; for in spite of the low rates of freight the prices now current for the coming season's arrivals are such as to leave no margin of profit for those engaged in the business.

Spruce deals are heavy in stock, but there is still a fair demand, so that, large as the quantity may appear, there is every probability of an advance being made even upon that shown at the last public sales here, and this probability is strengthened by the fact that towards the close of the season a considerable amount of anxiety to secure cargoes for outports was displayed by those who a few weeks ago were cool or indifferent for any proposals for business. Birch timber is very light in stock, and it would now seem that those who bought in this market recently, although at a considerable advance upon previous rates, exercised sound judgment, as there is, from advices abroad, no great quantity available for future supply.

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Nov. 1884, and first 11 months of the year:

MONTH ENDED 30TH NOV. 1884.

| | Quantity. | Value. |
|---|---|---|
| *Timber (Hewn).* | *Loads.* | *£.* |
| Russia | 11,108 | 15,705 |
| Sweden and Norway | 40,761 | 59,601 |
| Germany | 16,817 | 40,934 |
| United States | 3,825 | 19,406 |
| British India | 1,662 | 21,258 |
| British North America | 19,185 | 80,571 |
| Other Countries | 31,199 | 31,686 |
| Total | 124,557 | 269,161 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 80,939 | 158,057 |
| Sweden and Norway | 135,476 | 290,421 |
| British North America | 69,462 | 171,567 |
| Other Countries | 7,669 | 27,355 |
| Total | 293,545 | 647,400 |
| Staves, (all sizes) | 11,156 | 59,841 |
| Mahogany (tons) | 4,018 | 33,057 |
| Total of Hewn and Sawn | 418,102 | 961,561 |

ELEVEN MONTHS ENDED 30TH NOV, 1884.

| | | |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 226,071 | 419,272 |
| Sweden and Norway | 582,327 | 869,192 |
| Germany | 261,947 | 639,937 |
| United States | 154,732 | 576,719 |
| British India | 35,353 | 512,068 |
| British North America | 222,565 | 971,957 |
| Other Countries | 389,094 | 509,989 |
| Total | 1,872,089 | 4,499,134 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 1,075,247 | 2,300,605 |
| Sweden and Norway | 1,561,533 | 3,311,868 |
| British North America | 942,571 | 2,240,829 |
| Other Countries | 346,005 | 1,066,026 |
| Total | 3,915,356 | 8,919,328 |
| Staves (all sizes) | 127,795 | 509,963 |
| Mahogany (tons) | 56,478 | 509,503 |
| Total of Hewn and Sawn | 5,787,445 | 13,418,462 |

THE Gainesville, Ga., match factory is paying about 30 per cent. on its investment, and turning out 5,000,000 matches a day.

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Dec. 1st, 1883 and 1884, and also the Consumption for the month of Nov. 1883 and 1884:—

| | *Stock, Dec. 1st. 1884.* | *Stock, Dec. 1st. 1883.* | *Consumption for the month of Nov. 1884.* | *Consumption for the month of Nov. 1883.* |
|---|---|---|---|---|
| Quebec Square Pine | 315,000 ft. | 464,000 ft. | 114,000 ft. | 241,000 ft. |
| " Waney Board | 425,000 " | 402,000 " | | |
| St. John Pine | 25,000 " | 46,000 " | 8,000 " | 43,000 " |
| Other Ports Pine | 76,000 " | 94,000 " | 12,000 " | 8,000 " |
| Red Pine | 57,000 " | 47,000 " | 3,000 " | 31,000 " |
| Pitch Pine, hewn | 502,000 " | 302,000 " | 46,000 " | 50,000 " |
| " Sawn | 305,000 " | 566,000 " | 127,000 " | 201,000 " |
| Planks | 51,000 " | 68,000 " | 4,000 " | 28,000 " |
| Dantzic, &c., Fir | 59,000 " | 116,000 " | 40,000 " | 7,000 " |
| Sweden and Norway Fir | 63,000 " | 110,000 " | 7,000 " | 15,000 " |
| Oak, Canadian and American | 277,000 " | 324,000 " | 32,000 " | 63,000 " |
| " Planks | 177,000 " | 173,000 " | 71,000 " | 71,000 " |
| " Baltic | 9,000 " | 21,000 " | 0,000 " | 0,000 " |
| Elm | 22,000 " | 17,000 " | 15,000 " | 15,000 " |
| Ash | 41,000 " | 28,000 " | 3,000 " | 1,000 " |
| Birch | 64,000 " | 121,000 " | 26,000 " | 80,000 " |
| East India Teak | 35,000 " | 37,000 " | 36,000 " | 2,000 " |
| Greenheart | 28,000 " | 112,000 " | 3,000 " | 14,000 " |
| N. B. & N. S. Spruce Deals | 27,574 stds. | 23,942 stds. | 6,727 stds. | 8,042 stds. |
| " Pine " | 1,026 " | 1,240 " | | |
| Quebec Pine & Spruce Deals | 7,583 " | 9,224 " | 3,756 " | 4,008 " |
| Baltic Red Deals, &c | 3,895 " | 5,205 " | 779 " | 1,063 " |
| Baltic Boards | 61 " | 263 " | 89 " | 28 " |
| " prepared Flooring | 2,959 " | 3,600 " | 766 " | 303 " |

# ST. CATHARINES SAW WORKS!

## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

**SAWS.**

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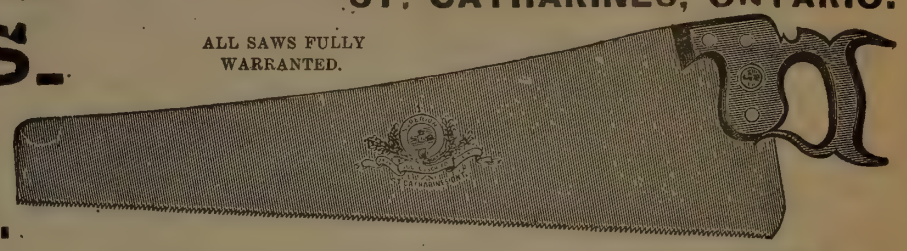
ALL SAWS FULLY WARRANTED.



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**"SIMONDS" SAWS.**

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## International & Colonial Exhibitions

**ANTWERP IN 1885—LONDON IN 1886.**

IT IS THE INTENTION to have a Canadian representation at the International Exhibition at Antwerp, commencing in May, 1885, and also at the Colonial and Indian Exhibition in London in 1886.

The Government will defray the cost of freight in conveying Canadian Exhibits to Antwerp, and from Antwerp to London, and also of returning them to Canada in the event of their not being sold.

All Exhibits for Antwerp should be ready for shipment not later than the first week in March next.

These Exhibitions, it is believed, will afford favourable opportunity for making known the natural capabilities, and manufacturing and industrial progress of the Dominion.

Circulars and forms containing more particular information may be obtained by letter (post free) addressed to the Department of Agriculture, Ottawa.

By order,

JOHN LOWE,
Secy., Dept. of Agric.

Department of Agriculture, Ottawa, December 19th, 1884. 6d153-6l1

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## Johnston's Fluid Beef

The nourishing, palatable and warmth giving qualities of Johnston's Fluid Beef has caused this invaluable preparation to before a favorite and fashionable beverage for the winter season. It is now obtainable on draught at the leading hotels and restaurants throughout the Dominion. 6l1

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## SAW MILL

—AND—

## TIMBER LIMITS

**FOR SALE.**

In the matter of Authier Frere & Co., Danville, Q.

The undersigned offer for private sale on favorable terms the following properties:

1. Saw mill at Danville, in complete running order, with all the necessary machinery for manufacturing lumber, shingles, clapboards, lath, etc. Also about 850 arpents of woodland, well set with spruce, hemlock, hardwood, etc. The timber limits attached to this mill cover a space of three miles square, and will furnish 50,000 logs annually during 20 years. The mill is driven by water power, and the supply of water is ample during the driest season.

2. A land in 12th Range Durham, comprising about 116 acres.

3. Two lots of land in the village of Durham, with a store, blacksmith shop and other buildings thereon erected.

4. A lot of land in the village of Durham 60x100, with a wooden house thereon erected.

5. A farm in the Township of Acton, being the east half of lot 11 in the third range, containing 100 acres, with house and other buildings thereon erected.

Further information given on application to

KENT & TURCOTTE,
7 Place d'Armes, Montreal,
Or to
R. L. AUTHIER,
Kingsey Siding, Q.

1l1

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THE

## Cooks' Favorite!

**BAKING POWDER.**

DOMINION SILVER MEDAL

At Ottawa Exhibition, 1884. It is the most economic and the best in use. Perfectly Pure. l20-1y

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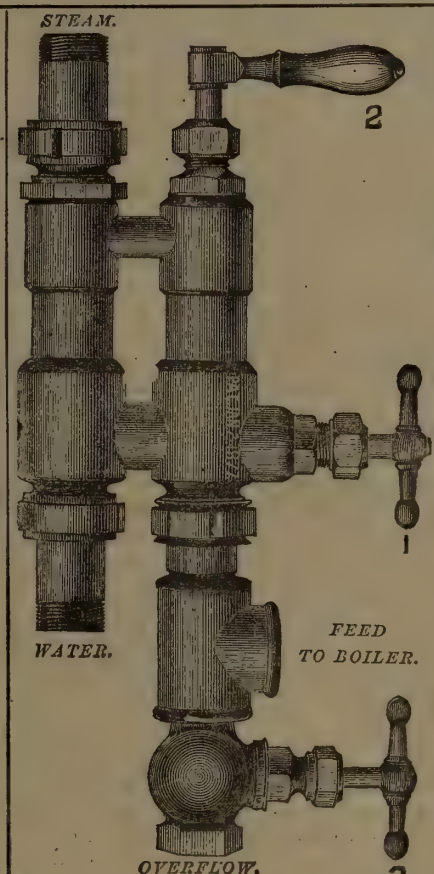


# The Hancock Inspirator

**Best Feed er known for Stationery, Marine or Locomotive Boilers.**

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**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

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# PETER ROBERTSON

## CHAUDIERE, - OTTAWA,

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# LUMBERMANS' TOOLS!

**Which took every honor awarded at the Centennial Exhibition.**

*THE CELEBRATED*

## Lightning Cant Dog.

PETER ROBERTSON, Chaudiere, Ottawa.

20l1y

## FOREST GROWTH IN DIFFERENT SECTIONS.

A considerable portion of the great West is but scantly supplied with forest trees, and during the last few years the demand for railroad ties and structures for bridges, for dwellings and public buildings, also for export, so that the timber has diminished nearly or quite twenty-five per cent. Montana has good timber lands, but she is not producing more than enough for home demand.

Many of the Western States have not timber and lumber enough for their own needs and are obliged to import a large portion of the lumber consumed.

The Indian Territory has a moderate amount of forest, but the railroads are fast consuming it.

The gigantic forests of California have been so recklesaly wasted that she now imports lumber and even fire wood.

In the prairie States, liberal premiums have been offered for tree planting by the State; and the National Government, by its Timber-Culture Act, has sought to promote the cultivation of forest trees. Many railroad companies, which own large tracts, have sought to encourage tree-culture. These efforts have lead to the planting of many millions of trees, but many die the first and second year, and the whole number planted in several years bears but a small prvportion to the annual destruction of the forests.

The forest growths differ very materially in different sections. In Minnesota and Dakota pine is pre-eminent, but a few of the harder woods are scattered through the forests. In Montana we find pine, black walnut, maple and some oak. Oregon and Washington are remarkable in the western part for their gigantic firs, as well as pine, spruce, red cedar and sequoias. From these the forests of Alaska and British Columbia, the Pacific Coast will no doubt draw its supplies for years to come. The forests ot Arkansas, Eastern and Middle Texas, are largely composed of hardwoods; here we find several species of oak, one an evergreen, though uot the genuine live oak; in Northern Arkansas the tulip tree or yellow poplar, the sweet, sour, and black gum, cypress and the osage orange.

The mountains of Arizona, Colorado, and New Mexico, are generally covered to the snow line with evergreen forests, mostly pine, but not of as gigantic size as are found on the Pacific coast.

The forests of California are for the most part wholly unlike those of regions east of the Rocky Mountains. The *Sequoia gigantea* has attained in some instances a height of 450 feet, and very few, when their growth was attained, are less than 325 feet. The tallest now standing is said to be 376 feet in height. Their circumference is as remarkable as their height, ranging from 100 to 120 feet. The sugar pine and the Douglas spruce both attain a height of 250 to 300 feet, with a circumference of 40 to 45 feet.

Many other trees unknown to the East thrive there, some of them semi-tropical, and 100 feet or more in height.

The trees raised from the seed under the timber culture and other acts have been almost entirely of the rapidly growing kinds, such as the cottonwood, locust, osage orange, vine, maple, white maple, etc. Few of these have much value for timber, but most of them are good for fuel and make rather durable railroad ties.—*Southern Lumberman.*

## A DESTROYER IN THE SPRUCE FORESTS OF MAINE.

According to accounts of observations published in the third Bulletin of the Entomological Division of the Department of Agriculture, the ravages of the spruce bud worm (*Tortrix fumiferana*) have been extensive and destructive in the coast forests of Maine west of the Penebscot river. The damage appears to have reached only a few miles inland from the coast, but the belt in which it has prevailed is marked by extensive masses of dead woods. The trees are attacked in the terminal buds, which are eaten away, and when that is done the case is hopeless. The fatal character of the attack is owing to the fact that the spruce puts forth but few buds, and those mostly at the end of the twigs, and when these are destroyed it has nothing on which to sustain the season's life. The attack is made in June, when the growth is most lively, and just at the time when the check upon it can produce the most serious results. The larches are also attacked by a saw fly, but with results such as are not necessarily fatal as in the case of the spruce. They are more liberally provided with buds, some of which may escape and afford a living provision of foliage. The larch, moreover, sheds its leaves in the fall, and is in foliage before its enemies attack it. Hence, while the spruce and fir succumb to the first season's assaults, the larch can endure two years of them.—*Science Monthly.*

## SAWDUST PAPFR.

Paper made of sawdust is among the latest achievements in wood pulp and paper making inventions. The Rutland (Vt.) *Herald* comes to us printed on paper made exclusively of sawdust. It is a product of a roller pulp machine invented by G. H. Pond, of Glens Falls, N.-Y. There is no grinding in the process; the material is pressed into pulp by iron rollers working inside of an iron cylinder. It is bleached by a new process devised by the same inventor. In his machine, shavings, chips, sawdust and refuse of saw mills generally, as well as bagasse, the refuse of sugar cane, are converted into pulp, which the maker claims to be superior to the pulp of wood and rags. It does seem to be, in one respect, it possesses the important advantage of being strong—tough. The tensile strength per square inch is proved to be about double that of paper used by most newspapers, which bears a breaking strain of only about eight pounds in the tester, while this marks seventeen to the square inch. It is, however, rather hard, harsh, "rattly."—*Hartford, Conn., Times.*

## THE FORESTRY QUESTION AGAIN.

Since the recent agitation of the forestry question has called attention to the injury to our enormous reserves of timber resulting from the zeal of lumbermen to cut down trees wherever they could conveniently get at them, efforts have been made to show that the necessity for protecting our forests had been much exaggerated, but the most recent statistics indicate that unless some decisive action is taken in regard to the presevation of the trees, not many years will elapse ere we shall have neither forests nor rain. The estimated area of the United States is 2,306,000,000 acres, of which 380,000,000 acres are said to be in forest, thus making about 16 per cent. while Europe has 28 per cent. more than this country. This showing is unexpectedly great for Europe and discouragingly small for America, but some encouragement is found in the fact that the people are annually taking more interest in the subject, and the plains of the northwest are to a greater extent than ever before being dotted with groups of shade and lumber trees. As the area of tree planting advances westward the rainfall goes with it, and very soon there will be no "Great American Desert," such as was laid down in the maps of 20 years ago.—*N. Y. Shipping List.*

## RUNNING MACHINE SHOPS PROFITABLY.

The economy of spending money is nowhere better illustrated than in machine shops. The gradual decline of many machine shops, says a contemporary, can be traced directly to a reluctance to invest in any modern tools and appliances at a time when the money was at hand for the purpose; or perhaps it would be better to say, to a lack of some definite plan for the systematical renewal of tools as they become obsolete. The actual rather than the economical life of machine tools is considered. A machine may last fifty years, when from any economic consideration it ought not to last more than ten. The trouble with a good many machine shops to-day is, that they are trying to get along with tools that were hardly up to the times twenty years ago. These, in competition with modern tools, throw away the chances of success in the beginning. Nothing is nearer the impossible than running a machine shop profitable in competition with other shops provided with tools upon which ten per cent. more work can be done, yet ten per cent difference in the efficiency of machine tools is more than common. The longer the attempt at competition is persevered in under these conditions, the less money there will generally be with which to put the shop on a competing basis.

There is in too many machine shops a good deal of the look of general decay, evidencing an affection for old tools as old friends. Unless tools are replaced systematically as new ideas are embodied in their construction, they are generally never replaced; and unless provision is made at the beginning for this, it is seldom done. The job soon becomes too formidable for serious contemplation.

Often an old shop that has not kept pace with times in the way of tools tries a new superintendent and foreman, but these new men find their antiquated surroundings too much for their skill and best intentions. It is coming as competition in the machine business becomes more and more potent, which it is sure to continue to do, to be useless to try to keep up in the race by the methods of even a few years ago. Skilled superintendents, foremen and workmen cannot do it without modern tools. It may be a pity to consign old tools to the cupola, but it is often the best place for them. The trouble is not in putting them there,—where they will do the most good,—but in not putting them there soon enough.—*Boston Journal of Commerce.*

## NEW ORLEANS EXPOSITION.

New Orleans, Dec. 16.—The day of the inauguration ceremonies of the World's Exposition opened bright and cheerfully, and thousands of people made preparations early in the morning for the long expected event. Public and private buildings along the principal streets were decorated. Along the street car routes visitors from the north were astonished to find hundreds of orange trees bending beneath ripe fruit, and to see the bloom of roses and the rich verdure of kitchen and flower gardens. At eleven o'clock Gen. McEnery, of Louisiana, and Major-General Glinn, commander of the State militia, with his staff, the mayor of New Orleans, members of the State Legislature, the foreign consuls, and guests assembled at the St. Charles hotel, whence the procession, escorted by a battalion of the Washington artillery, the Continental Guards in the garb of a centuary ago, and the Crescent Rifles, was formed. The procession, headed by the celebrated Mexican band, passed through the crowded streets to the river, where a steamer was in waiting to convey the official guests and their escort to the grounds. The various complexions of the members of the Mexican band, ranging from almost colourless white to dusky Indian colour, and equally varied character of their oddly shaped instrements, attracted much attention, while their unique musical selections elicited repeated applause. The French man-of-war Bouvette, lying in mid-stream, saluted the steamer on her approach, and then, hoisting her anchor, steamed up the river in her company. As the boats approached the wharf at the exposition grounds the Washington artillery fired a salute of one hundred guns. The guests proceeded to the spacious building, where the inauguration ceremonies were carried out in the programme, the machinery being set in motion by the President, who was in Washington, by the aid of electricity.

It is estimated that Messrs. Bronson & Weston's cut of lumber this year at their Ottawa mills will be about 60,000,000 feet.

**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

## A CATASTROPHE.

Montreal, Dec. 19.—On Wednesday last, between two and three p.m., St. Hyacinthe was again the scene of a very sat catastrophe. Last spring, at the breaking of the river, large icebergs were seen floating down the Yamaska at a rapid rate until they met with the huge dam which barricades the river to supply water power to the various manufactories lining the river banks. For a few hours the accumulated ice afforded the spectators a very curious aspect, until finally the pressure became so powerful that the dam gave way to the mighty waters. In addition to this two iron bridges were swept down the rapids. Last May a contract was signed by a Toronto firm for the erection of a new bridge, and since that time the work was carried on very satisfrctorily. Last Wednesday 150 feet was swept from off its piers and hurled down the rapids, along with 21 workmen, by a hurricane. Immediately the sad accident was telephoned the city over, and in a few minutes hundreds were lining the shores. All were rescued, two lifeless, two others whose recovery is very doubtful, and 17 hopeful of recovery, as their injuries are not grave.

## RAISING TREES FOR CUTTINGS.

A few varieties of forest trees, notably the poplars and willows, are very easy grown from cuttings of the wood, and are commonly propagated in this way. The new wood is used for this purpose—that is, the wood of the previous season's growth. It should be cut in November or December, before any extreme cold weather occurs, and during mild weather when there is no frost in the wood.

Keep fresh by putting it away in sand, in the cellar, and work up into cuttings during stormy weather in the winter. They are made by simply cutting the wood with a shaw knife into sections of about eight inches in length; then pack them away in the sand or earth in shallow boxes so that the upper ends will be exposed to the air. Keep in this way until spring, when the callus forms on the lower end, and they will start more quickly into growth than if cut in the spring, just before setting them in them in the ground.

In planting them out it is important that the lower ends should have the earth packed tightly against them, and to do this successfully it is necessary, if planting them in the nursery, to open a trench by stake and line, or, if in the the forest, to throw out a spadeful of earth to each place where the cuttings are to be inserted. They are to be set deep enough so as to cover up the terminal bud.—*Exchange.*

## Cheap Paper.

The demand for cheap paper for newspapers is likely to be met. The Rutland *Herald* is printed on paper made out of sawdust according to a proces invented by G. H. Pond, of Glens Falls, New York. This sawdust paper is said to be stronger and firmer than wood pulp paper, but somewhat inferior in color. This defect will, it is said be remedied with the perfection of the process. The new paper being made out of material quite worthless and bleached without the use of expensive chemicals, will be much cheaper than that now used by newspapers.—*London Free Press.*

## Kennebec Boom Business.

The *Mining and Industrial Journal*, of Bangor, Me., gives the following:—About 620,000 logs have passed through Hallowell boom this season, the largest number with the exception of 1880, ever driven in one year on the Kennebec. The logs were distributed about as follows: Bradstreet Lumber Company, about 125,000; H. W. Jewett & Co., 80,000; J. M. Haines, Wiscasset, 75,000; M. G. Shaw, Bath, 75,000; Lawrence Brothers, 80,000; Milliken & Son, Hallowell, 25,000; J. Gray & Son, 25,000; Closson & Co., 18,000; Foster & Son, Richmond, 25,000; Messrs. Fogg, Bowdoinham, 24,000; Varney, Bath, 8,000; Burrill, Fairfied, 30,000. The above are Gardener firms, except as otherwise specified. The logs were all cut on Dead, Moose ond Roach rivers, and on the east branch of the Kennebec."

Subscribe for the Canada Lumberman.

# Chips.

EMPIRE LUMBER COMPANY succeeds Geo. W. Slade & Co., at Mankato, Minn.

ABOUT 35,000,000 feet of logs will be cut on Cedar river, Mich., this winter.

THERE are in stock at Bayfield, Wis., it is reported, 3,850,000 feet of merchantable lumber.

LONGBERRY Brothers will put 3,000,000 feet of logs into Houghton Lake, Mich., this winter.

CHARLES WOODS has three million feet of logs skidded at his camp on the Au Sable, Michigan.

A MAN at Flint, Mich., has advertised for 750 men to work on levees and make ties in the state of Mississippi.

GEORGE DICK, of Dick & Banning's mill Keewatin, Ont., had his arm caught in a wheel and badly crushed.

WM. CONNAYAN, a skidder in Crepin, Murphy & Son's camp on White river was killed by a falling tree Dec. 4th.

THE Longford Lumber Company are building a church at Longford, Ont., for their employees and other residents.

MR. WALKER has put a new thirty horse power engine into his steam saw mill at Coulson, Ont., and is preparing for a big season's work.

MR. COON is rebuiling his saw mill recently burned near Rush Point post office, Belmont township, this county.

THE papers at Orange, Texas, and vicinity are enthusiastic over the loading of a vessel at Sabine Pass with lumber for a foreign market.

HANNAH, LAY & Co. have 6,000,000 feet of lumber at Long Lake mill to be hauled on sleighs this winter to Traverse City, for shipment.

ONE of Thompson Smith's camps, from Cheboygan, Mich., has been broken up, and his total force working in the woods has been decreased about 200 men.

THE cut of the North Wisconsin Lumber Company, at Hayward, Wis., this year was 37,000,000 feet of lumber, besides other products.

NINE hundred buildings have been erected at Port Arthur, Ont., during the past season. The Government is building a breakwater there to cost $250,000.

THE Marinette Lumber Company has four camps on the Michigamme river, near Republic, Mich., where will be put in about 13,500,000 feet of logs.

THE product of the mills on the Narragaugus river, Me., for the past season, amounted to 9,650,000 feet of long lumber, 400,000 lath, 600,000 staves and 400,000 shingles.

THE lumber yard of E. F. Hallack & Co., Denver, Colorado, was partially destroyed by fire December 7th, together with a stable and four mules. The loss is estimated at $20,000; fully insured.

SENATOR DOLPH, of Oregon, has introduced a bill into the United States senate to forbid the dumping of obstructive refuse into navigable streams, and among other things saw mill refuse is specially mentioned.

THE logging output on the Narragaugus, Maine, this season, is better than it was last year. J. W. Coffin & Co. will put in 3,500,000 feet, 1,000,000 more than last year, and G. R. Campbell & Co. will cut 6,000,000 feet. C. L. Nickols expects to put in a million feet.

RECENTLY Crandall Roblin, employed by the Calcasieu Lumber Company at Lake Charles, La., on their logging railroad, was struck by a log, which caused his death in half an hour. Mr. Roblin was originally from Canada, and lately from Saginaw and Bay City, Mich.

ON Dec. 12th John Hunter was killed in his father's saw mill at Hale's Bridge, Otonabee township, in this county. He was caught in a belt and was whirled about the shaft until not a bone in his body was left unbroken, and the belt had to be cut in several pieces before his mangled remains could be released.

A MAN in the employ of Charles Sedgewick, at Orting, W. T., was cutting a cedar tree, when it fell towards the house, on the roof of which Mr. Sedgewick was at work repairing a flue. Mrs. Sedgewich ran forward to alarm her husband, when the tree struck her and killed her instantly.

MR. PETER MCLAREN, of Perth, talks of building a large steam saw mill at or near Calabogie Lake, next season.

THERE is quite a boom in the lumber trade in the back country. Gilmour & Co. propose taking out some 200,000 pieces. The principal part of their operation will be performed by contractors and jobbers.—*Belleville Intelligencer.*

Two rafts of small square timber were sold at Calabogie Lake, delivered on board Kingston and Pembroke cars, at 16 cents per foot this fall. They were rafted again at Kingston, and used to float a raft of oak to Quebec.— *Ottawa Citizen.*

MR. J. S. SULLIVAN, contractor, of Pembroke, leaves for the Kippewa on Monday next, where he will get out in the next four years 200,000 logs. He contracted with Mr. O. Latour, lumberman, to supply him with 50,000 logs a year. Mr. Sullivan takes with him $30,000 worth of plant—only sufficient for one year's work.

THERE are many oak trees of very great age in Hatfield Park, Herts. One of these, called the Lion Oak, is 34 feet in circumference; another has a diameter of over 33 feet. Queen Elizabeth's oak takes its name from the circumference of the death of her sister, Queen Mary, having been communicated to the Princess Elizabeth whilst she was sitting reading under the shade of its branches.


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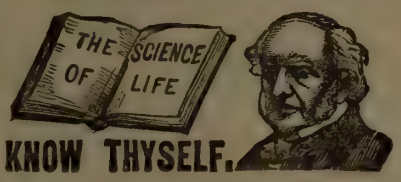


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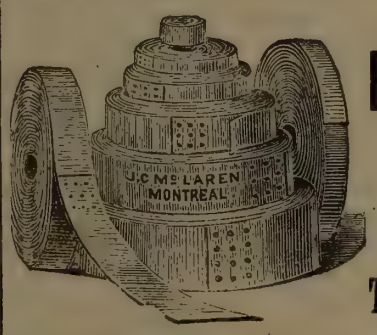


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# Market Reports.

## MONTREAL.

*From Our Own Correspondent.*

DEC. 24.—The weather for the past two weeks has been very cold accompanied with a good deal of snow which has made good country roads and has been favorable for lumber operations. There is no change to note in the way of business which is, as usual at this season, very quiet. Many lumbermen are still taking stock; prices are now as low as they will be and as there will not likely be as many logs made this winter as usual, the prospects for the future, even if the demand in the United States is not any better than it was during the past year, are very fair. The lumbermen on the Ottawa who manufacture for the United States trade will not make as many logs, but as the deal business in England was very good this year and apparently appears good for the future, those manufacturers who make deals will no doubt get their usual quantity of logs. The building trade in Montreal will be very good during the coming year, it is said many dwelling houses comparatively will be erected as there are not many vacant houses of a desirable size in the city. We quote prices ex yard as follows:—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 22 00@24 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Bass, " " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@25 00 |
| Hard Maple, ₱ M | 25 00@35 00 |
| Lath, ₱ M | 1 75@2 00 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

LIVERPOOL MARKETS.

Our latest lumber advices from Liverpool state that the imports for the month of November were unusally small being only 202,000 feet of all kinds of timber, against 1,093,000 feet for the same month last year, and 449,000 feet the previous year, and of all kinds of deals and boards 5,173 standards against 14,232 standards for same month last year. The consumption has been fully up to expectations, but stocks held are still heavy. Private sales of Halifax spruce deals are reported at from £5 11s. 3d. to £5 12s. 6d. per standard ex quay, Miramichi pine timber at from 12½d. to 13d. per foot ex quay, spruce deals from Dorchester and Pictou were offered at auction, but a quantity was withdrawn, the prices realized were for 3x11 £6 12s. 6d, 3x9 £5 15s. to £6, 3x7 £3 7s. 6d. to £5 10s. per standard.

## TORONTO.

*From Our Own Correspondent.*

DEC. 24.—All the retail yards are quiet and most of the lumber arriving by rail during the last two weeks did not find a market, and had to be piled in the railroad yards waiting for customers. This will not, however, continue. Arrivals by rail during the winter promises to be light, most of the large mill yards being nearly cleaned out. There is quite sufficient lumber of most kinds piled in the various railroad and retail yards to meet all demands likely to be made on the dealers here during the entire winter. The amount left on the docks, however, is considerably less than last year, but will doubtless accumulate considerably during the winter months. Figures for carload lots have ruled lower during the last two weeks on account of push sales to avoid unloading alongside cars.

The total receipts for the season fall short of the previous year as anticipated, still the showing is fully up to expectations. The full receipts are as follows:—Pine lumber all grades 101,500,000 feet, as against 132,000,000 for 1883, showing a decrease of 31,500,000 feet. The shipments from the docks is 38,000,000 feet as against 52,000,000 for 1883, a decrease of 14,000,000 feet. The total quantity of shingles recieved for 1884 6,500,000, 1883 5,000,000, increase 1,500,000, a considerable portion of this increase has however been forwarded on to other points by transhipment or otherwise. Laths received for 1884, 8,000,000 pieces, as against 10,000,000 pieces for 1883, decrease 2,000,000 pieces. Receipts of hardwood 1884 is 750,000 feet, as against 1,000,000 feet for 1883, showing a decrease of 250,000 feet. The quantity of basswood coming to hand has been about 1,400,000 feet, and of cedar posts, chiefly used for block paving purposes, 3,000 cords. The consumption for our city and suburbs during the present season, presuming the stocks on hand to be about the same as at this period last year, would be about 63,500,000 feet, showing a decrease on our home market of 16,500,000 feet, although it does not necessarily follow that a less amount in dollars and cents has been expended in building operations, but a better class of buildings have been erected and the difference expended in bricks and mortar, neither does it follow that less stocks have been cut at the mills, it shows, however, that a portion of such stocks have sought other outlets.

Now as to the profits from the season's operations. It is patent to all who have taken the trouble to watch the state of lumber market that in four seasons out of five the mill men who dispose of their stocks early fare the best, and the dealers who purchase such early cuts have had in just as many cases to fight against a falling market during the remainder of the season. Our middle men as a rule are much too eager for the fray and start in too early in the season before the market shapes itself, and so have to work hard the entire year, and come out at the end with little but scars. So to follow Artemus Ward and give double advice, I would say to the mill man sell as early as possible, and to the middleman don't be in a hurry. To sum the whole matter up the manufacturer has had much the better end of the pole this season, and the wholesale men will come out with small profits for their season's work, and there are but few men engaged in business who deserve better things, openhearted and generous to a fault, men of large minds, yet harassed by bad debts and designing debtors, working hard and making others and not themselves wealthy, such is the business life, as a rule, of the wholesale lumber dealer.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅜ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ₱ M | 2 90 |
| Sawn Lath | 2 75 |

## WINNIPEG.

The *Commercial* of Dec. 23rd says:—Dealers in this line, like the bears, have hunted for winter quarters. Those who are not in the woods with gangs have no business to keep them moving, as sales of lumber during the past week have not been heard of. The trade is practically asleep for the balance of the winter.

## CHICAGO.

AT THE YARDS.

The *Northwestern Lumberman* of Dec. 27th, says:—Never, perhaps, in the history of the Chicago lumber trade, at least since it became one of magnitude, was it as quite as now. A depressed season has been succeeded by an unusually cold and stormy December, which has corked up business and driven the stopper in, almost. There is a remnant of business remaining, but as a general thing the district is silent as the yard of a custom saw mill in the country. Nearly all the hands who make the yards lively in the busy season have been laid off for the time being. A few men are retained to attend to what little business there is doing, and these potter around appearing to be mostly engaged in killing time. A few cars are kept standing on the switches for a show, and once in a while one is loaded; but the "pulls" are few and far between, and the trains are bob tailed. Even the great concerns, like those at the west end of the district, and the manufacturers' yards, are doing very little. One stupendous concern is reported to have shipped but one car load during the week past. If it were not for the local box-worker's demand and the little that is coming from the builders for inside finishing purposes, the yards might about as well shut up shop and their owners go to New Orleans for a month. Though business at the yards is so nearly stagnated, the merchants are looking at the situation with fortitude, and are mostly smothering complaint. In fact, they appear to have expected an unusually quiet time this winter during the latter part of this month, and next.

Just at present the danger of cutting prices is avoided by the fact that few bills are going about for bids. Whas little trade there is comes through mail orders for small lots to patch up assortments, and without the agency of travelling men or the enticement of circular letters and ingeniously contrived lists. All these persuasive means have, for the time, been largely abated. Country merchants are taking account of stock, and it would be useless to ply them with special inducements to buy lumber, even if there were not other reasons why they should refuse to stock up. All things seem to conspire together to stop the movement of lumber until after New Year's, if no longer.

Receipts of lumber, shingles, etc., from Jan. 1st to Dec. 24th as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1884 | 2,345,000 | 742,000 |
| 1883 | 2,132,000 | 388,000 |

FROM JANUARY 1, 1884, TO DEC. 24, 1884, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1884 | 1,800,222,000 | 894,843,000 |
| 1883 | 1,882,399,000 | 1,140,302,000 |
| Decrease | 82,177,000 | 245,459,000 |

LAKE RECEIPTS FROM JAN. 1 TO DEC.

| | |
|---|---|
| Lumber | 1,579,281,000 |
| Shingles | 807,385,000 |
| Lath | 66,071,000 |
| Posts | 2,612,096 |
| Railroad ties | 895,909 |
| Wood, cords | 25,115 |
| Bark, cords | 21,450 |
| Slabs, cords | 43,632 |
| Telegraph poles | 142,096 |
| Piles | 517 |
| Spars | 12 |

STOCK ON HAND DEC. 1.

| | 1884. | 1883. | 1882. |
|---|---|---|---|
| Lumber & timber | 660,936,272 | 682,771,984 | 719,458,412 |
| Shingles | 336,700,492 | 449,258,650 | 309,932,650 |
| Lath | 68,905,506 | 53,791,034 | 76,994,869 |
| Pickets | 2,335,858 | 2,366,681 | 3,976,920 |
| Cedar posts | 571,004 | 450,878 | 100,350 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in quotations and very little doing. The stock held here is very much in excess of any former season.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 22 00@25 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## BOSTON.

The *Journal of Commerce* of Dec. 27th says: Business is naturally contracted and slow, partly from the closing of accounts for the year and in part because the cold and wintry weather has brought outside building operations to a standstill. The general tone is quiet and steady for desirable grades of lumber, both soft and hard.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₱ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2¼x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ¾-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ¾-inch | 30 00@32 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 2 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ₱ M | 0 00@ 2 00 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $46 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## LONDON.

The *Timber Trades Journal* of Dec. 13th says:—Things on Wednesday at the "Baltic" were not very lively, though there was by no means a bad attendance of the trade. Still, the disposition to accumulate stock so close to the end of the year, when books have to be balanced, can hardly be a very lively one. Hence we were not surprised to see things somewhat weaker than a fortnight ago. The few unreserved parcels of deals probably sold about as well as at the previous sale, but floorin was hardly so well sustained, and there was a decided drop in the one inch stuff submitted; matchlinings, perhaps, were better favored, but plain-edged stuff certainly went unsatisfactorily.

## TYNE.

The *Timber Trades Journal* of Dec. 13th says:—There are very few items in the arrivals of timber calling for any special comment during the last seven days—one cargo from Quebec, one cargo from Danzig, and amongst miscellaneous arrivals a parcel of American doors and laths, per steamer direct from New York. There are none from the Baltic, and with the exception of perhaps a straggling cargo still to come forward it is scarcely likely that the present season will see any more. If not, so much the better, as the stocks on hand, though not large, will certainly be ample for the winter and spring requirements, even if somewhat improved upon by the present.

In best redwood deals there is a scarcity, but the consumption being only small no inconvenience need be felt.

So far there is no improvement to notice in shipbuilding trade, and the demand for goods used in that trade remains very feeble. In yellow pine log timber this is principally felt, and stocks are much too heavy for the prospect.

Yellow pine deals have moved away very rapidly and are held at firm rates, from £16 to £16 10s. per standards being current prices for 2nds.

During the last month pitch pine timber has increased a little in price, and still shows an upward tendency. The weather being favorable there is still a good deal of housebuilding going forward, and several contracts are being rapidly pushed forward.

### EXPLOSION IN A PLANING MILL.

DETROIT, Dec. 20.—Last evening the boiler in C. H. Plummer's planing mill, at Jackson, Mich., exploded, blowing the entire structure into fragments. At the time ten men were engaged about the place, six of whom were either killed or wounded. Albert Keypert, teamster, was instantly killed, his head being nearly severed from his body, which was badly mangled. He was from Three Rivers, and 21 years old. Geo. Vanbrunt, engineer, aged 43, was scalded about the body and hurt about the head, and was also struck on the side but not dangerously. Fred. Vanbrunt, son of George, had his right leg broken, the left badly burned, and hurt about the head and shoulders. His wounds are dangerous. Fred. Miller, aged 35, was struck on the head, and a sliver the size of a cigar was forced into his skull just above the temple. He will probably die. Charles Davenport was wound up in the belts, which had to be cut to release him. His left arm was broken, but he sustained no serious injury. N. B. Breckenridge was hurt about the head and side, but not seriously. A flue was driven through the side of a house thirty rods away. George Pangburn and Will Noll were up stairs with Fred Miller, but escaped unhurt. The force of the explosion shook the entire city, rattling doors and windows two miles from the scene. Bricks were hurled through the sides of houses forty rods away. Charley Palmer was walking the street 150 rods distant, and was struck in the face by part of a brick and knocked down. Not a stick of the mill was left in its original shape. Wm. Armstrong, assistant superintendent of the Cleveland mine at Ishpeming, Mich., while assisting the workmen, was struck on the back by a falling piece of rock and instantly killed. He was a young man, 28 years old, and very highly esteemed.

### WINTER CARE OF WORK HORSES.

For a winter diet there is nothing better or cheaper than corn fodder, with a ration of grain, generally oats, varying according to circumstances. For many years I have never fed hay to horses during the winter until the corn fodder was entirely gone. Horses are very fond of corn fodder, and thrive upon it better than on hay; it has no tendency to produce trouble with the wind, as hay is liable to do if fed in excess, as it frequently is. The fodder is slightly constipating, but this should be remedied by a ration of wet bran now and then. Corn stalks furnish both food and bedding. The simplest way of feeding them is to stand a bundle in the manger, and the horse will eat it down closely, the hard butts of the stalks being left. The horse seems to know, what many farmers do not seem to be able to learn, that corn butts are of little value as food. At the next feed throw the butts under the horse, and he will require no other litter and keep cleaner on this bed than on straw. The manure is difficult to take out, but if it accumulates for a few days the stalks will be broken and easier to remove. The actual cost of feeding horses, of course, varies widley in accordance with the locality; near the large cities, with high-priced pasture land, hay, and grain, of course, are much higher than in more remote districts, so that an estimate expressed in figures would not be of any value for the locality for which it was made. The course of feeding above laid down, is as well adapted as any to the circumstances of the ordinary farmer. The stable should be well ventilated, cool, not cold; and draughts avoided if possible. The feet of horses, not at work, should be carefully examined every few days, at least twice a week. The ordinary diseases of the stable, "thrush" and "scratches," can be prevented in most, I was about to say in all cases. Should any disease become established, consult a competent veterinary surgeon at once.—*Stock-Breeder.*

### How to Preserve Posts.

A writer in the *Western Rural* furnishes the following information regarding the preservation of posts for fences, etc.: "I discovered many years ago that wood can be made to last longer than iron in the ground, but thought the process so simple and inexpensive that it was not worth while to make any stir about it. I would as soon have polar or ash as any other kind of timber for posts. I have taken out basswood posts, after having been set seven years, that were sound as when put in the ground. Time and weather seem to have had no effect on them. The posts can be prepared for less than two cents. Take up, polish with linseed oil and stir in pulverized charcoal to the consistency of paint. Put a coat of this over the timber, and there is not a man that will live long enough to see it rotten."

**"A Perfect Flood of Sunshine"**

Will fill the heart of every suffering woman when she will only persist in the use of Dr. Pierce's Favorite Prescription. It will cure the most excruciating perodical pains, and relieve you of all irregularities and give healthy action. It will positively cure internal inflammation and ulceration, misplacement and all kindred disorders. Price reduced to one dollar. By druggists.

BLODGETT & BYRNE, of Muskegon, Mich., will not join the curtailing movement, but will run five camps, and put in about 25,000,000 feet of logs on the Muskegon over their railroad.

**Consumption.**

Notwithstanding the great number who yearly succumb to this fatal and terrible disease, which is daily winding its fatal coils around thousands who are unconscious of its deadly presence, Dr. Pierce's Golden Medical Discovery will clense the blood of scrofulous impurities and cure tubercular consumption (which is only scrofulous diseases of the lungs). Send three letter stamps and get Dr. Pierce's complete treatis on consumption and kindred affections with numerous testimoniats of cures. Address World's Dispensary Medical Association, Buffalo N. Y.

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ON OLD CATALOGUE PRICES.

Gent's 14k. Gold Watch reduced to $25.

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Gent's Key Wind Jewel, Cut Expansion Balance, in Solid 3oz. Coin Silver Case; Hunting or Open Face reduced to $8.

Gent's Patent Lever, Jewelled, Cut Expansion Balance, Solid Coin Silver Cases, reduced to $7.

Men's size, Heavy, Useful, Cheap Watches, Hunting Case, Key Wind, White Metal Silvered, $4.50; Yellow Metal, Gilded, $4.50.

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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

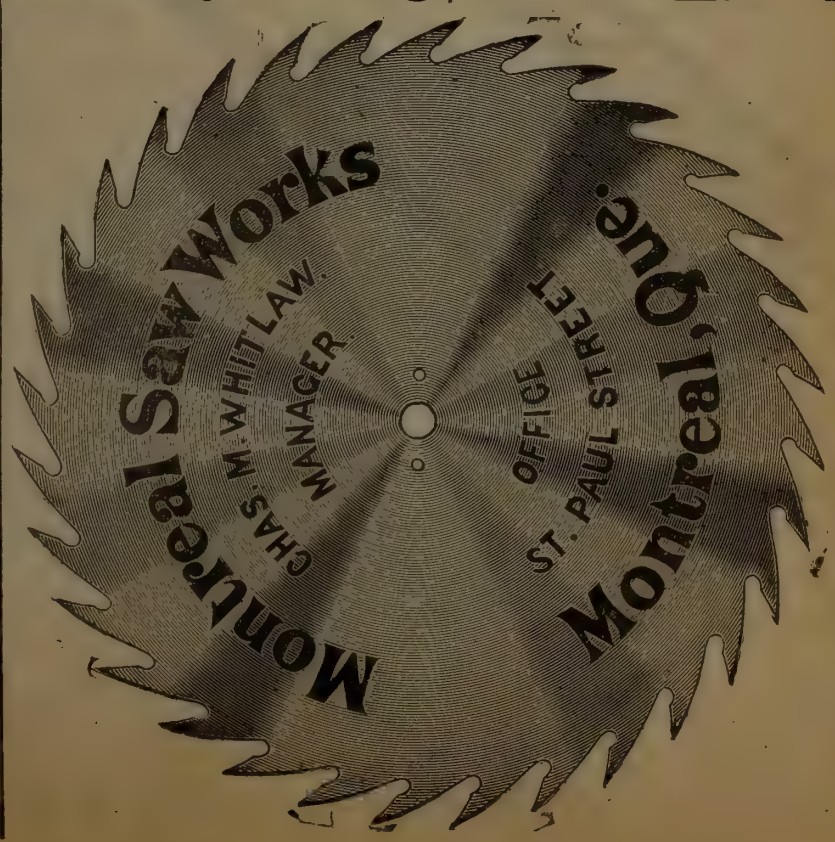
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.




Catalogues and Price Lists furnished on application.

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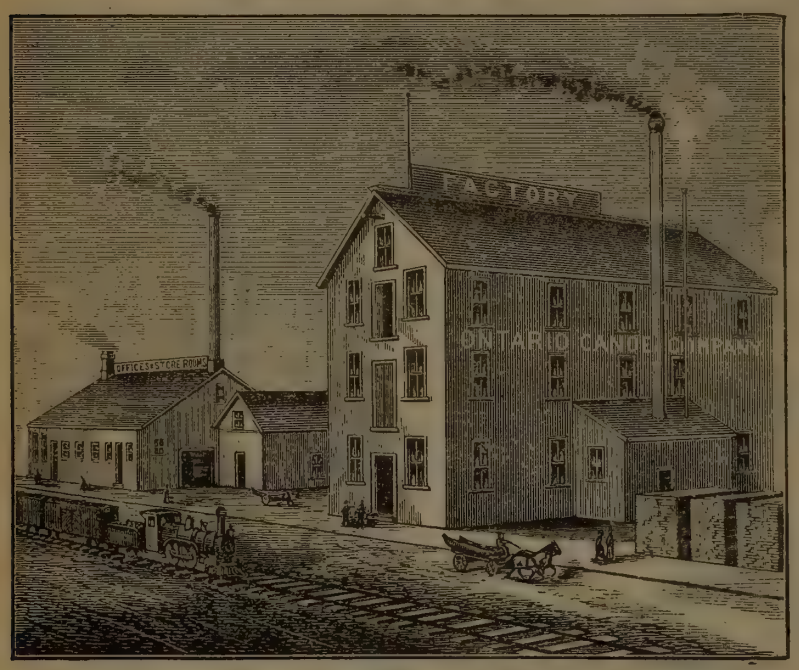
PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

# CANOES

*Patnet Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.*




*Gold Medal, London Fisheries Exhibition, 1883.*

J. Z. ROGERS,
President and Managing Director

Send cent Stamp for Illustrated Catalogue.

**Canoes for Lumbermen,** designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

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A GOLD MEDAL awarded at the Ottawa Exhibition, 1884, for Fine Display

—OF—

LEATHER Belting.

SILVER MEDAL at Montreal, 1884

SILVER MEDAL at St. John, N.B., 1883.

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THE INTERNATIONAL

# TENT & AWNING CO.

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MANUFACTURERS OF

# LUMBERMEN'S TENTS

*The Cheapest and Best in the Market!*

32 First Prizes AND 6 MEDALS.

AT HALIFAX AND TORONTO, *1883.*

Tents, Flags, Tarpaulins, Waterproof Goods, Camp Furniture, etc., etc.

*Estimates for Circus Tents, Range Marquees, Hand-made Sails, etc., furnished on application. Liberal Discount to Large Buyers.*

## PORTABLE CANVAS BOATS MADE TO ORDER

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Camp Furniture! IN SEE OUR NOVELTIES

**At Toronto, Ont., and St. John, N.B., we made the best Display of Tents ever shown in Canada—and we never substitute an article inferior to sample in filling orders.**

**We control "THE LATOUR PAT." for Camp Furniture, the best on earth. The only Gold Medal ever given for this class of goods was awarded to the Latour Camp Furniture at Toronto in 1882.**

## SAIL-MAKING.

**We have secured the services of the best practical sail-maker in Canada. Orders in this line will receive prompt and satisfactory attention, as is usual with all orders entrusted to us.**

**Agency for the WILDERMUTH BED SPRING, the best in the Market.**

A. G. FORGIE, MANAGER,

# International Tent & Awning Co.,

*184 SPARKS STREET, OTTAWA.*

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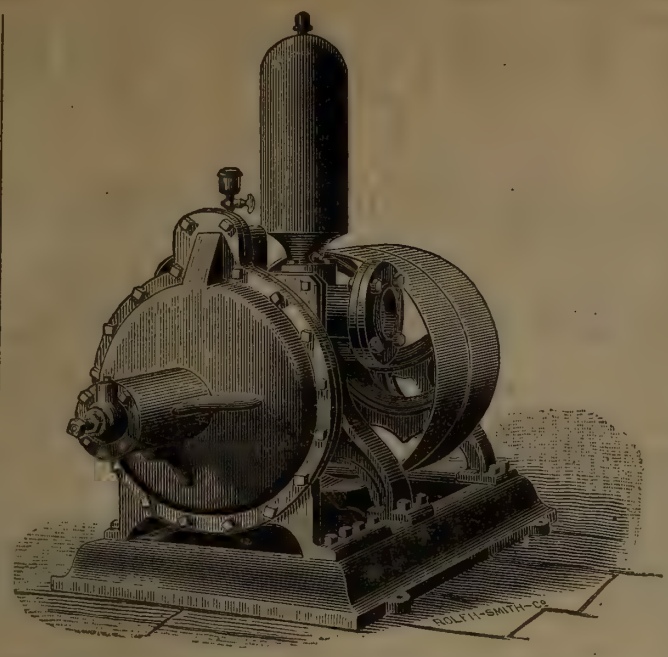
# Central Iron Works

SIMCOE STREET

**PETERBOROUGH, Ontario.**

WM. H. LAW, PROP'R.



## PROTECTION FROM FIRE

An Improved Rotary Piston Force Pump.

| No. | Diameter of Pipes. | | No. of Revolutions. | Capacity per minute at table speed. | Price. |
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| | Suction. | Discharge. | | | |
| 2 | 2½ in. | 2 inch. | 250 | 125 | $100 |
| 3 | 4 " | 3 " | 250 | 250 | 150 |
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**Engines, Boilers, Pumps, Saw Mill Machinery**

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For Architectural Works &c.

**IRON ROOFING AND BRIDGES,**

AND ENGINEERING WORK IN GENERAL.

# Why do You Suffer when you May be Cured by Electricity?

**Without loss of time or great expense. Ten or Twenty Dollars spent in ELECTRIC BELTS will do you more good than a hundred expended any other way.**

CRYING BABIES.—Babies cry because they suffer. Their little gums are inflamed, and their bodies are more or less feverish. If you will tie around their necks one of NORMAN'S ELECTRIC TEETHING NECKLACES you will see a wonderful change for the better, their sufferings cease, and their general health improves. Ask for Norman's, and take no other, and you will be pleased. Price 50c.

FEVER AND AGUE.—Do not throw away money on worthless remedies, when NORMAN'S ELECTRIC BELTS will cure you. Use one and you will find immediate benefit. Every one is guaranteed.

LUMBAGO.—Those who suffer from this disease will find a friend in NORMAN'S ELECTRIC BELTS when all other remedies fail. Ask your druggist for it, and take no other. Guaranteed.

CONSTIPATION AND BILIOUSNESS and all disorders of the Stomach and Liver are corrected by using NORMAN'S ELECTRIC BELTS. Try one and be convinced. Guaranteed.

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INDIGESTION AND SLEEPLESSNESS.—This seven headed monster is more easily overcome by the use of NORMAN'S ELECTRIC BELTS than any other remedy, and it possibly cannot do any injury. Guaranteed.

RHEUMATISM cannot remain long with any one who uses NORMAN'S ELECTRIC BELTS, and Neuralgia is driven away like smoke before the wind. Give one a trial. Every belt guaranteed.

NERVOUSNESS may be entirely cured in a short time by using one of NORMAN'S ELECTRIC BELTS, without any fear of injury. Try one and be convinced. Guaranteed.

***TESTIMONIALS—A few Sample Testimonials that speak for Themselves.***

MR. A. NORMAN, WALLATTA, D.T., December 17th, 1883.
DEAR SIR,—I am happy to inform you that the Appliances I got from your Chicago agent have had a most marvellous effect upon my patient who suffered from Sciatica. He could get very little relief from medicine. Shortly after he got your belts he was able to get out of bed, and is now on a visit to his Canadian friends. Send me some more circulars. Yours truly, DR. D. McLACHLAN.

MR. NORMAN, PERTH, ONT., June, 1883.
DEAR SIR,—I have been wearing your Electric Insoles for about six months, and have been greatly benefited by them. I recommend them to all who suffer from Rheumatism. Yours truly, MRS. J. GUTHRIE.

A. NORMAN, ESQ., OTTAWA, September 3rd, 1883.
DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way. Yours truly, R. E. HALLIBURTON.

A. NORMAN, ESQ., PETERBOROUGH, October 15th, 1884.
DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured my cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good. Yours truly, J. GREEN.

## ☞CURATIVE BATHS: Electric, Vapor, Sulphur, and Hot and Cold Baths.

Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them. Consultation free. Circular on application.

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# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

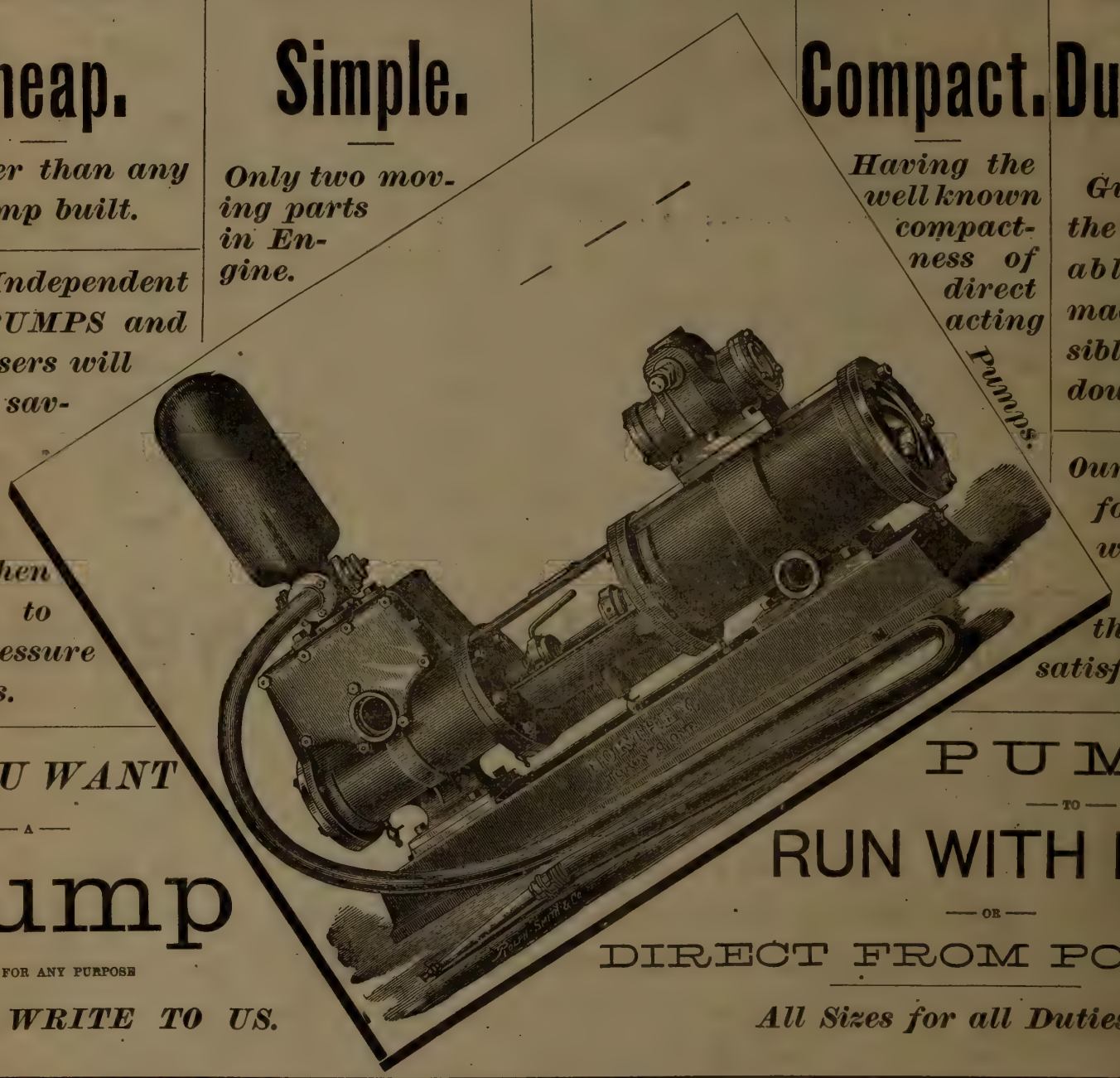
**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

**Simple.**

***Only two moving parts in Engine.***



**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

***IF YOU WANT***

— A —

**Pump**

FOR ANY PURPOSE

☞ ***WRITE TO US.***

**PUMPS**

— TO —

**RUN WITH BELT**

— OR —

**DIRECT FROM POWER**

***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

## SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

## NORTHEY & COMPANY,

Corner FRONT & PARLIAMENT STS., TORONTO, ONT.

*Something New in Leather Belting*

**To Mill Owners, Lumbermen, Manufacturers**

*USE ONLY*

# Dixon's Patent Lap Joint Star Rivet Leather Belting

To be had only from

F. E. DIXON & Co., 70 King Street East, Toronto

**Send for Circulars and Price Lists.**

# ROBERT MITCHELL & CO.

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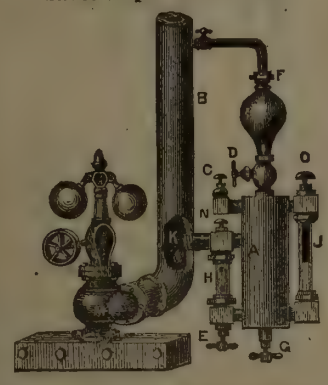
**THE KORTING INJECTOR**

Acknowledged to be the Best Boiler Feeder in the World.

Will lift 20 feet, and take water at 150 degrees. Only one handle to start and stop. No valve to regulate. CHEAPER than any other Injector in the market. Also, PATENT EJECTORS fo conveying Water or Liquids. CIRCULARS ON APPLICATION

**The Continuous Feed Lubricator Saves 50 per Cent in Oil.**

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*Will always find a Large Stock of*

All Canadian Woollen and Cotton Goods,

# SHANTY BLANKETS

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*At LOWEST MILL PRICE, at*

# JNO. MACDONALD & CO'S

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***Send Sample Order our LINED SHAPED HORSE RUG, a Specialty, highly recommended for wear and warmth.***

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160 Sparks Street,

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## STILL RETAINS THE LEAD

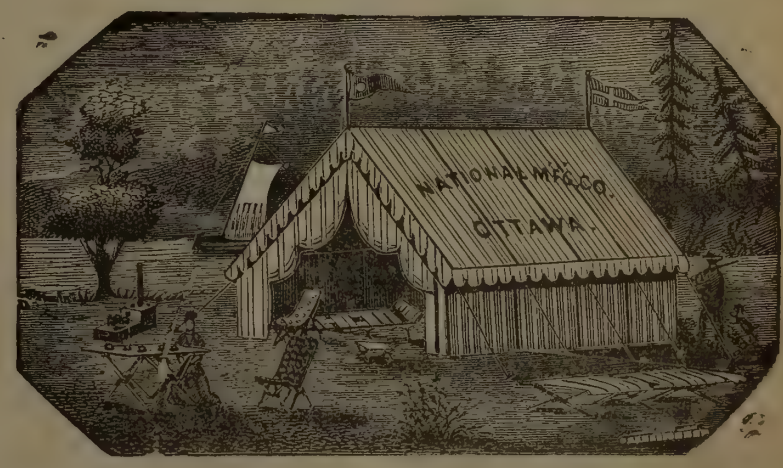
Have been awarded every Medal ever offered at Exhibitions in Canada for our Lines of Goods, notwitstanding the misleading advertisements of unscrupulous firms claiming awards, medals, &c., which they have never received. See letter from H. J. HILL, Esq., Secretary Toronto Industrial Exhibition Association, below. This year at Toronto, Montreal and Ottawa Exhibitions, we have been awarded

10—MEDALS—10

—FOR—

# TENTS, MARQUEES,

*And CAMP FURNITURE.*




Lumbermen, Contractors and Surveyors

***And other large buyers, offered Special Inducements.***

New Illustrated and Descriptive Catalogue mailed on application.

OUR LINES OF

Tents, Flags, Tarpaulins and Camp Furniture, Shanty and Horse Blankets

Are without Doubt the BEST and CHEAPEST in the Market.

National Manufacturing Co. 160 Sparks St. Ottawa

P. O. BOX 345.

OFFICE OF THE INDUSTRIAL EXHIBITION ASSOCIATION,
TORONTO, MARCH 10, 1884.

*The National Manufacturing Co'y, Ottawa:*

GENTLEMEN,—In reply to your enquiry, I beg to say that the highest awards made at the Industrial Exhibition for the years 1881, 1882, and 1883, for Tents, Marquees and Flags, were to your Company, being a Silver Medal for each year. Last year, 1883, was the first in which a medal was specially offered for Camp Furniture and Equipages, and it was awarded to the National Manufacturing Co'y, of Ottawa.

I am, your respectfully,

H. J. HILL, Manager and Secretary

6mL20

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## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

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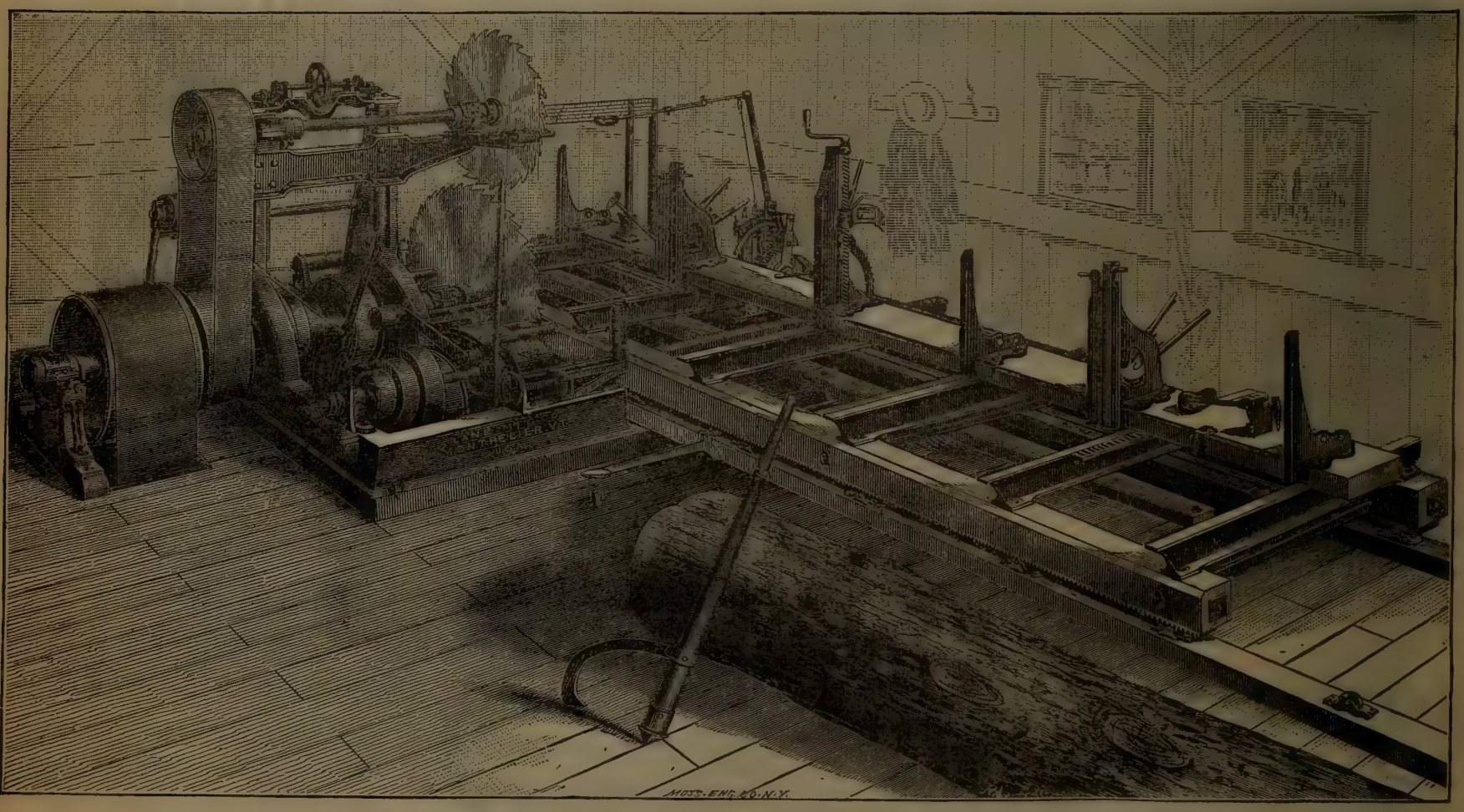

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Mill Supplies, Etc., Etc.

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**LANE MANUFACTURING CO'Y, MONTPELIER, VT.**

# The William Hamilton Manufacturing Co'y

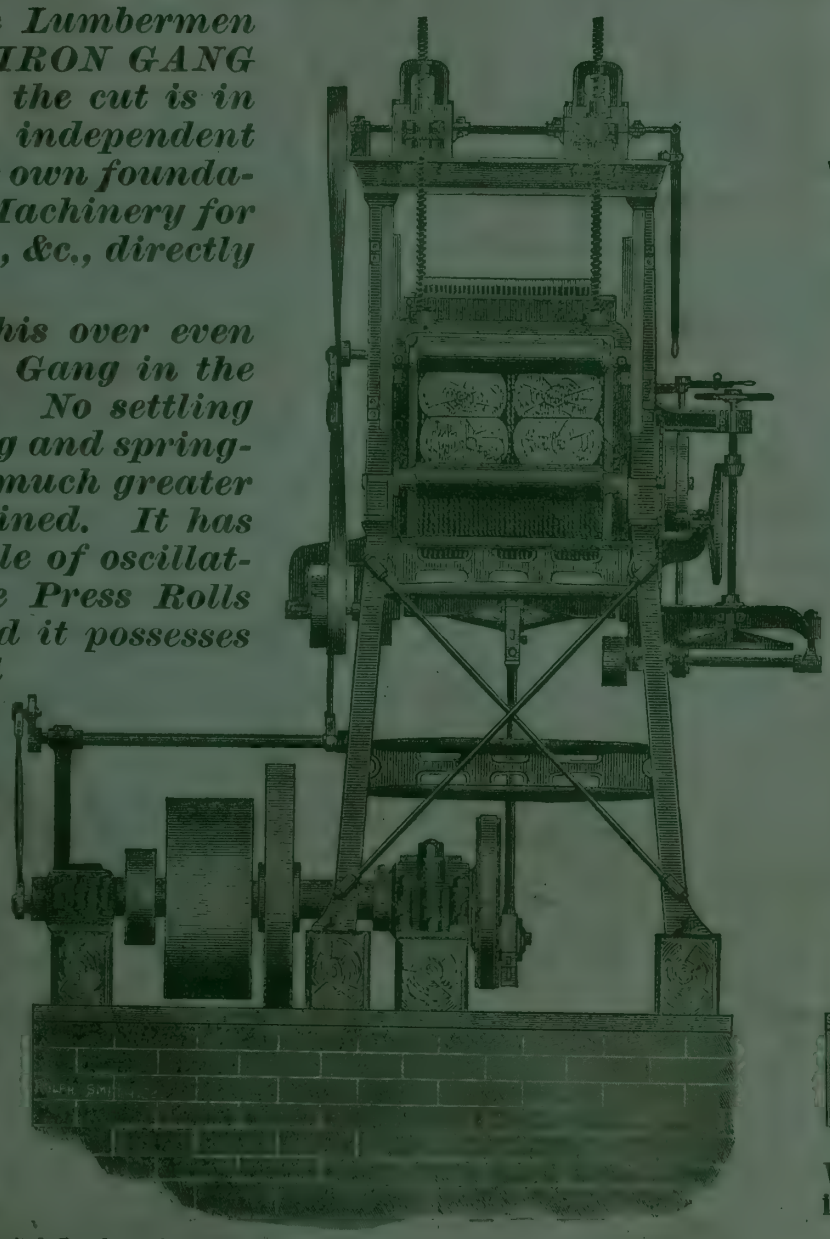
MANUFACTURERS OF (LIMITED,)

# Saw Mills and General Machinery

PETERBOROUGH, - ONTARIO.

*We introduce to the Lumbermen of Canada, our New IRON GANG which will be seen by the cut is in itself a complete and independent Machine, resting on its own foundations, having all the Machinery for operating, feeding, &c., &c., directly attached.*

*The advantage of this over even a well built ordinary Gang in the mill frame is evident. No settling out of line, no yielding and springing of timber, while a much greater working speed is obtained. It has the most improved style of oscillating motion, it has the Press Rolls operated by power, and it possesses generally all the good features of best American Gangs, with heavier frame work, and heavier shafting, all with a view to rapid, steady & correct working. A good look at one of these massive machines satisfies the sawmill man that they are in every way capable of continuously performing heavy duty throughout the season.*



**We make these GANGS one of our Specialties, and manufacture different sizes.**

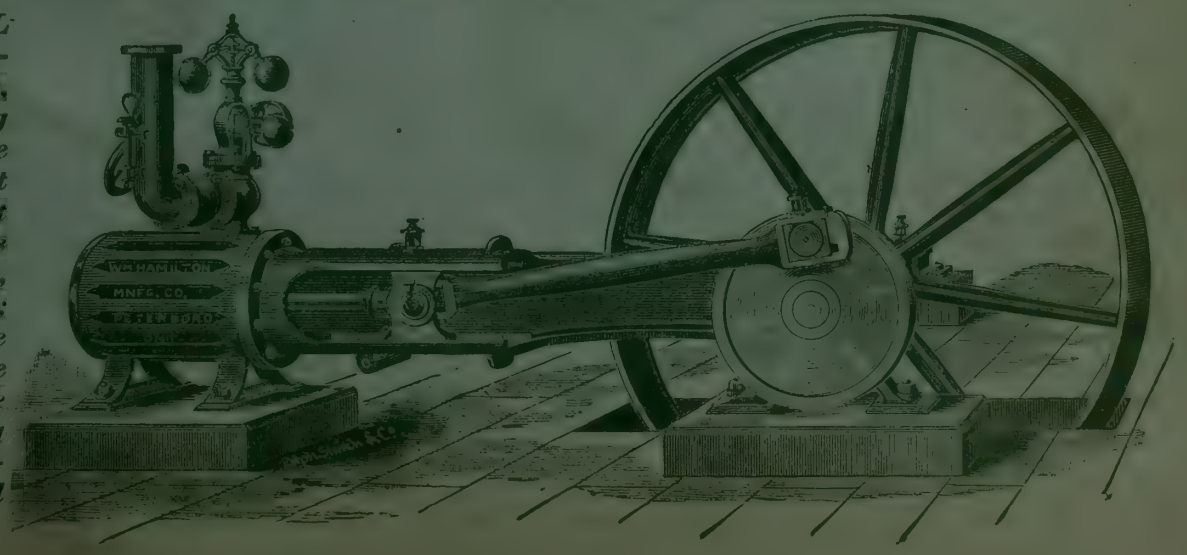
*The Wm. Hamilton Manufacturing Company, Limited, Peterborough,*

SERPENT RIVER, September 28, 1884.

GENTS,—We are doing big work with the Mill. We recently cut 122 thousand feet of inch Lumber in one day, with the Gang and Large Circular, without any crowding whatever. We are making a steady average of from 90 to 100 thousandfeet per day. I cannot say what amount the Gang is really capable of cutting, as we have not yet been able to stock it to run it at its full capacity. I can, conscientiously recommend the Gang as the best built in Canada. I remain, yours truly, (Signed) WM. THOMPSON, Mill Manager for COOK BROS.

## Also, ENGINES and BOILERS.

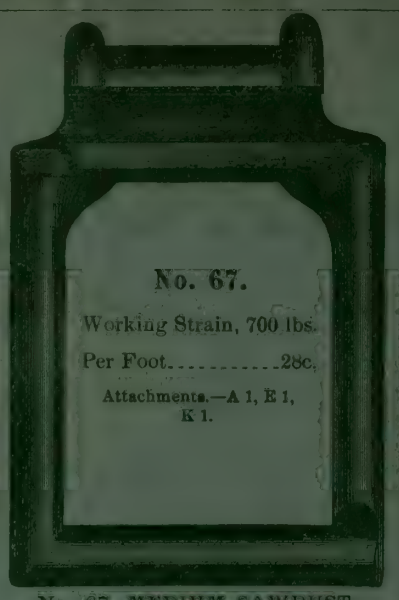
*This cut represents our SAW MILL ENGINE, of which we make the following our Standard sizes, 12x16, 16x20, 18x24, 20x24, and 24x30, built Strong and Substantial for Heavy Work. The Piston Rod, Cross-head Pin, and Wrist Pin, are made heavy and of the best steel; the Connecting Rod has solid ends and is tightened up by screw and wedge, avoiding all danger of keys getting out; the Slide Valve has a simple balance valve, requiring no attention from the Engineer, as it is self-adjusting. The Engine Shaft and Fly Wheel made very heavy. Belt Pulleys put on when required in place of Fly Wheel, and all regulated by the Judson Governor.*



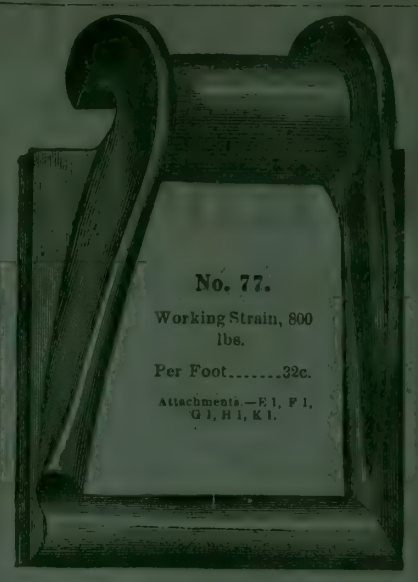
# EWART'S PATENT LINK BELTING

For CONVEYING, ELEVATING, and TRANSFERRING every Product of a Saw Mill, into, through and out of the mill.

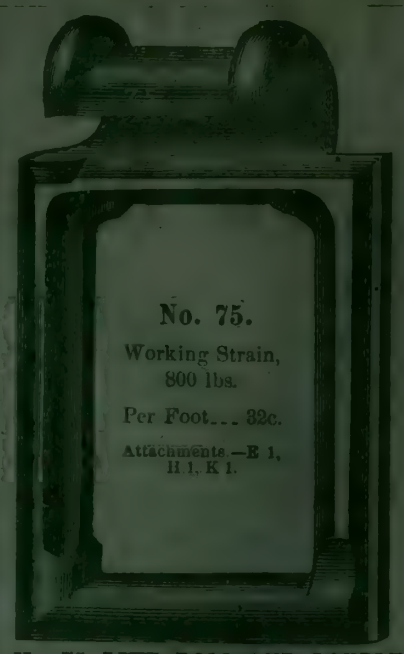
No. 45—16 cents per foot and 55 used for light Sawdust Conveyors.




No. 67—MEDIUM SAWDUST CONVEYOR CHAIN.




No. 77—CONVEYOR AND LIVE ROLL CHAIN



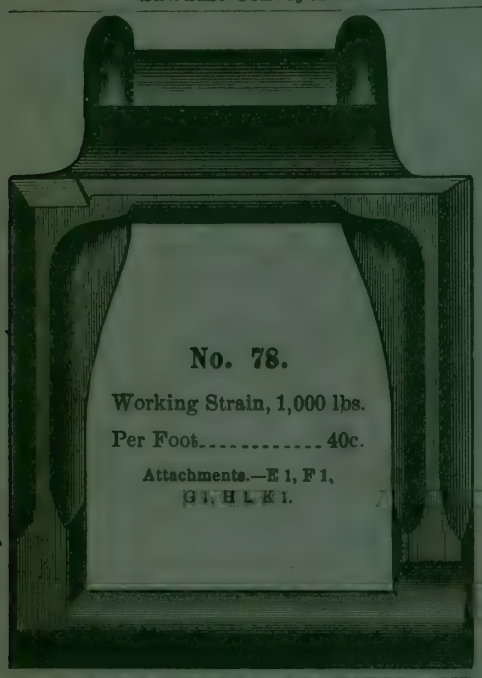

No. 75—LIVE ROLL AND DOUBLE STRAND ELEVATORS

H¹ TRANSFER ATTACHMENT

H⁴ TIE & POLE LOADING ATTACHMENT.

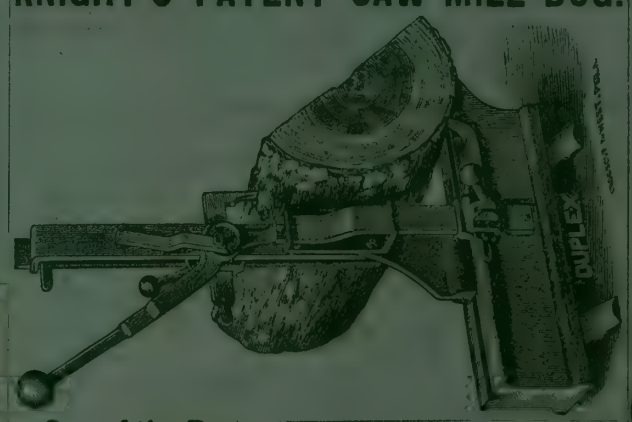
# GIANT CHAIN for Log Haulups

*And Main Refuse Conveyors for Large Mills.*

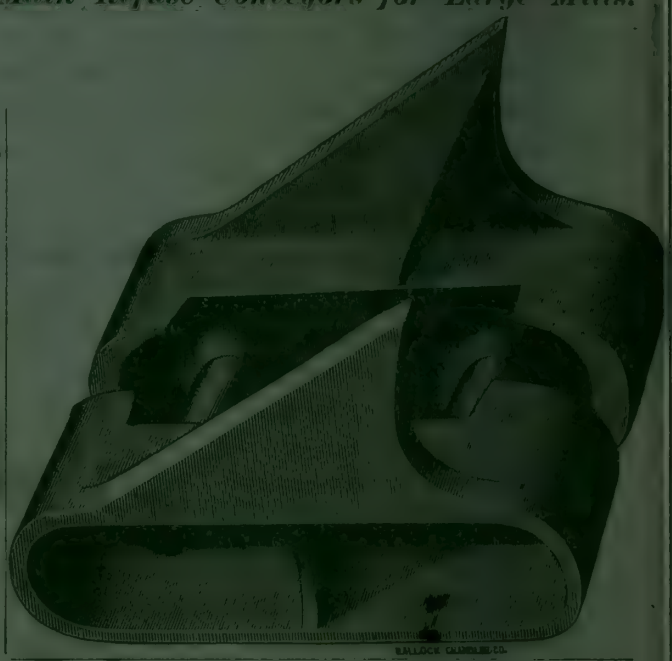



No. 78 & 88—HEAVY TRANSFER AND LIVE ROLL CHAIN.

## KNIGHT'S PATENT SAW MILL DOG.




One of the Best Log and Board Dogs made.



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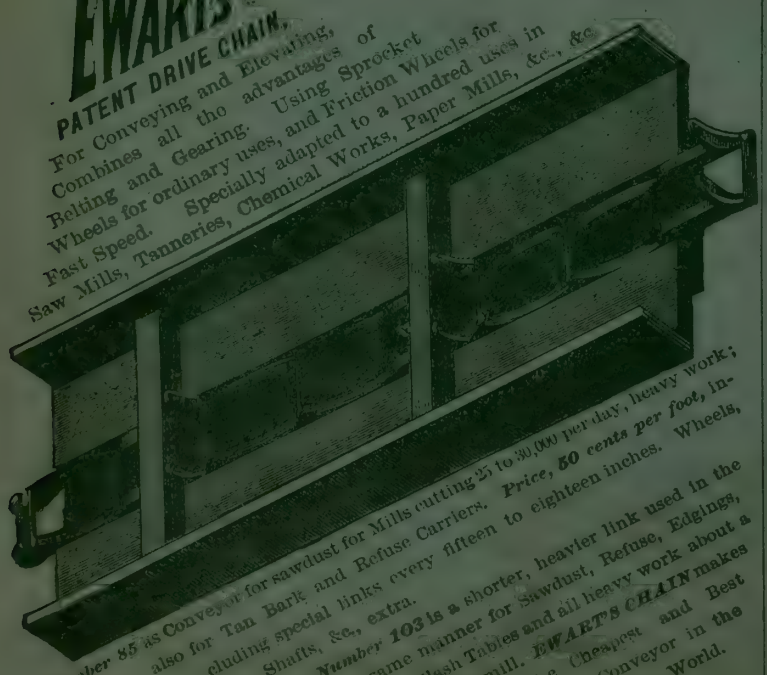

*Number 85* as Conveyor for sawdust for Mills cutting 25 to 30,000 per day, heavy work; also for Tan Bark and Refuse Carriers. *Price, 50 cents per foot,* including special links every fifteen to eighteen inches. Wheels, Shafts, &c., extra.

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VOL. 5. PETERBOROUGH, ONT., JANUARY 15, 1885. NO. 2.



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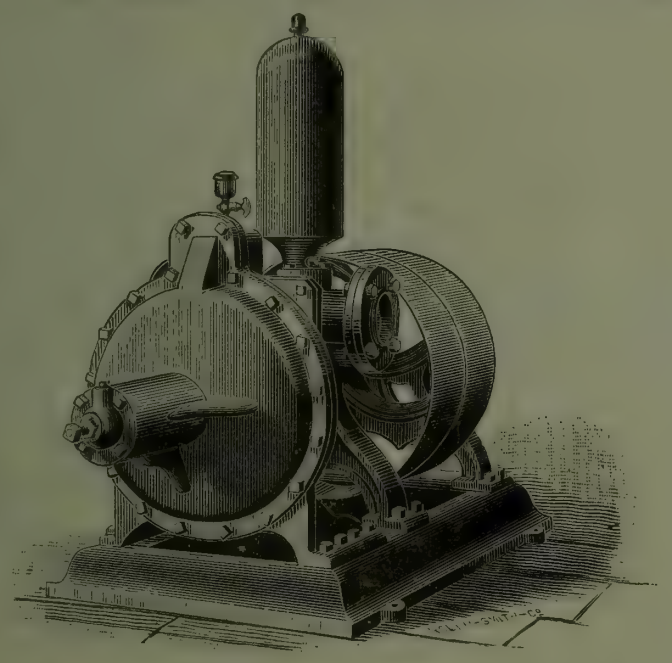
SIMCOE STREET

PETERBOROUGH, Ontario.

WM. H. LAW, PROP'R.



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## THE LUMBER AND TIMBER TRADE.

Messrs. J. Bell Forsyth & Co.'s annual trade circular is, says the Quebec *Chronicle*, very interesting to our commercial public. The figures presented deal, in an exhaustive manner, with the annual returns of manufacture, export and stock wintering, together with comparative statements, prices current, etc., etc. The arrivals of ocean steamships, during the year 1884, were 240, representing a tonnage of 427,834 tons. This marks a decrease of 29 steamships as compared with the list of arrivals in the previous year. Of sailing vessels from sea we had in 1884, 499 craft, with tonnage of 380,147, as compared with 627 vessels, 504,962 tons, last year. These figures indicate that the timber and deal trade of this port for the past season has been much more limited in volume than usual. A great falling off is also noted both in supply and export. The number of sailing vessels which cleared at the port of Quebec for sea, lumber laden, from the opening to the close of navigation, in 1884 was 366, tonnage 291,398. In 1883 the returns gave 487 vessels, tonnage 416,169.

"With this greatly reduced export," says the circular, "we might naturally look for more encouraging accounts from the principal markets in Great Britain to which our products are conveyed; but as yet we can discern no improvement, trade there is depressed, no revival has taken place in shipbuilding, which industry absorbs so much Canadian timber, and the imports of wood goods from other quarters have been more than sufficient for all requirements." It is gratifying to learn that the trade between Canada and South America is increasing. The shipments in 1884 amounted to about 37 million feet board measure from the St. Lawrence.

The table of prices current in Messrs. Forsyth's circular is based on actual sales. We print the statistics below, as they are likely to prove of interest to our merchants and others that are interested in the lumber and timber business:

| | $ cts. | $ cts. |
|---|---|---|
| White pine, in the raft, for inferior and ordinary, according to average, quality, &c., measured off | 0 15 @ | 0 18 |
| For fair average quality, according to average, quality, &c., measured off | 0 18 @ | 0 22 |
| For good and good fair average, according to average, quality, &c., measured off | 0 22 @ | 0 25 |
| For superior, according to average, quality, &c., measured off | 0 25 @ | 0 29 |
| In shipping order, according to average, quality, etc | 0 20 @ | 0 38 |
| Waney board, 18 to 19 inch, according to average, quality, &c | 0 32 @ | 0 34 |
| Waney board, 19 to 21 inch, according to average, quality, etc | 0 34 @ | 0 37 |
| Red pine, in the raft, measured off, according to average and quality | 0 12 @ | 0 18 |
| In shipping order, 35 to 45 feet, according to average and quality | 0 16 @ | 0 22 |
| Oak, Canada, by the dram, according to average and quality | 0 40 @ | 0 45 |
| Michigan and Ohio, by the dram, according to average and quality | 0 46 @ | 0 49 |
| Elm, by the dram, according to average and quality, 45 to 50 feet | 0 34 @ | 0 35 |
| Elm, by the dram, according to average and quality, 30 to 35 feet | 0 28 @ | 0 30 |
| Ash, 14 inches and up, according to average and quality | 0 28 @ | 0 32 |
| Birch, 16 inch average, according to average and quality | 0 22 @ | 0 24 |
| Tamarac, square, according to size and quality | 0 12 @ | 0 15 |
| Flatted, according to size and quality | 0 10 @ | 0 12 |
| Staves, merchantable pipe, according to quality and specification | $305 @ | $320 |
| W. O. Puncheon, merchantable, according to quality and specification | $ 75 @ | $ 80 |
| Deals, bright, according to mill specification, $115 to $118 for 1st, $75 to $80 for 2nd and $35 to $37 for 3rd quality. | | |
| Bright Michigan, according to mill specification, $130 to $140 for 1st, and $90 to $93 2nd quality. | | |
| Bright spruce, according to mill specification, $38 to $40 for 1st, $22 to $24 for 2nd and $20 to $22 3rd quality. | | |

Timber sold in the raft subjects the purchaser to great expense in dressing, butting, and at times heavy loss for culls—if sold in shipping order, the expense of shipping only is to be added.

These excerpts from the circular relating more particularly to the varieties of wood employed in commerce, are of general interest to the public:—

White Pine— Waney board.—The supply has been light, and generally speaking of good quality, the shipments considerable, leaving a stock on hand slightly over the average of the past five years. The demand has been good all season and especially during the autumn, when it was found that large average and choice lots were not easily procurable, and our highest quotations were given for timber of this class. As to the quality on hand we should remark that a large percentage is composed of Ottawa wood, small in size and poor in quality, while large average and choice timber is scarce.

Square.—The quantity measured is unusually light, comprising as it does some rafts now wintering on the Ottawa; the shipments have been exceptionally small and the stock wintering rather over the average of past years. There has been considerable difficulty all season in placing square timber and transactions have been chiefly confined to those rafts containing a good proportion of first class wood. Apart from 12 to 14 rafts manufactured during the winter of 1883 and 1884 and which have been held back on the Ottawa, there will be but a small supply to come from that quarter next season, as the winter's production according to the last estimates will not exceed 1½ million feet altogether, including a proportion of waney board. Quite sufficient, however, for all requirements likely to arise, and the manufacturers are acting very prudently in curtailing their operations to such an extent. Our present stock comprises the usual proportion of ordinary and inferior wood for which there is at the present period little or no demand.

| | | *Supply.* |
|---|---|---|
| 1884 | Square | 3,707,159 |
| | Waney | 2,199,867 |
| 1883 | Square | 7,412,034 |
| | Waney | 3,786,523 |

| | *Export.* | *Stock.* |
|---|---|---|
| 1884 | 6,047,680 | 7,501,529 Square. 2,399,001 Waney. |
| 1883 | 10,427,000 | 7,780,620 Square. 2,758,840 Waney. |

Red Pine.—The supply though unusually light has been ample, the consumption in the home markets having greatly diminished of late years. Good timber has been in fair request and the stock now wintering includes a considerable quantity of small inferior wood. The production will be almost nil this winter.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 327,735 | 614,280 | 1,012,426 |
| 1883 | 499,111 | 1,048,960 | 1,510,925 |

Oak.—Both the supply and export have been exceedingly moderate, and the stock on hand unusually light. Prices have been well maintained although transactions have not been numerous. The quantity wintering at Garden Island, we learn, is heavier than last season. The present mild weather and want of snow in the West, should it continue, will seriously curtail the production of Oak and other hardwoods this winter.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 772,260 | 1,212,520 | 837,715 |
| 1883 | 1,916,322 | 2,132,880 | 1,203,347 |

Elm.— The quantity measured although double that which arrived in 1883 is still under the average and about equal to the shipments, leaving a small stock for next spring. Standing timber is scarce and the manufacturer finds much difficulty in procuring choice wood. The production will not exceed that of last year from all accounts.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 657,919 | 658,000 | 114,961 |
| 1883 | 309,531 | 739,920 | 87,424 |

Ash.—The receipts have been in excess of past years, the export an average one, and the stock on hand almost sufficient for a season's shipments. Prices are easier than last year and this winter's productions will be small in consequence.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 451,984 | 360,080 | 339,358 |
| 1883 | 263,448 | 346,320 | 135,228 |

Birch.—With a limited supply and fair shipment this wood has been in good request. The quantity wintering is light and the supply for next year likely to be a moderate one.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 194,346 | 241,120 | 23,038 |
| 1883 | 132,624 | 233,040 | 6,629 |

Staves— Pipe.—The few Mille (94 in all) culled must strike our readers as being alarmingly small, still these figures are correct. Twenty years ago the receipts 1817 Mille, an immense decrease in this once profitable branch of the Quebec trade! This supply appears to have been ample, as prices in Great Britain have ruled low. The stock wintering, though apparently light, is above the average of the past five years.

Puncheon.—In 1864, 4,623 Mille were received against 261 in 1884, a decline in the same ratio as pipe. The export has been less than usual, the stock on hand moderate. We reduce our quotations for both pipe and puncheon from those of a year ago.

| | | | | |
|---|---|---|---|---|
| 1884 | Pipe | 94 | 183 | 379 |
| | Puncheon | 261 | 700 | 474 |
| 1883 | Pipe | 680 | 549 | 470 |
| | Puncheon | 663 | 933 | 805 |

Deals—Pine.—The demand has been chiefly for 1st and 2nd qualities which have been scarce, have ruled high and been in great request, especially choice lots from Michigan and elsewhere. There is a very considerable decline at this port both in the supply and export, while we find statements from Montreal and elsewhere showing a very decided increase in the year's shipments. We are aware that there are several causes at present influencing a portion of the deal trade to Montreal, but when we hear that owners of steamships refuse to charter their vessels to load at Quebec owing to certain bylaws of the Ship Laborers' Benevolent Society we think it only right to call attention to this matter of such grave importance to the ship laborer as well as to all others interested in the trade or welfare of this port. The total shipments from Montreal and Pierreville, as we learn from the circular of Messrs. Anderson, McKenzie & Co., amount to over two million (Quebec stand.) pine and spruce—a very great increase in the past two years.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 2,247,240 | 2,442,946 | 847,653 |
| 1884 | 3,228,622 | 3,993,071 | 1,543,359 |

Spruce have not varied much in value, the low prices ruling in Great Britain leaving an insufficient margin for profit. The supply and export have been light and the stock wintering a moderate one. Owing to the present prospects the cut of logs will be greatly curtailed. First quality are scarce and in great request while we do not alter our quotations for 2nd and 3rd quality.

| | *Supply.* | *Export.* | *Stock.* |
|---|---|---|---|
| 1884 | 2,222,557 | 2,636,465 | 838,817 |
| 1883 | 3,569,440 | 2,729,635 | 1,752,725 |

Freights opened at 20s. to 22s. timber, 50s. deals to Liverpool, 22s, to 23s. 3d. timber, 50s. deals to London, 17s. to 18s. 6d. timber, 50s.

deals to Clyde. Closing at 21s. timber, 50s. deals to Liverpool. 22s. 6d. timber, 55s. deals to London. 21s. timber to Clyde, 22s. 6d. timber for orders safe port U. K. Lambert freights for River Plate ranged from $11 to $14 per M. ft. B. M.

On the whole, the showing is not as bad as many were inclined to believe it would be, at the opening of business in the early part of the present year. Until business looks up our best policy will be to curtail our exports.

### THE WOOD MARKET IN BRITAIN.

Trade in timber or lumber in the United Kingdom was very quiet at last accounts. "Hand to mouth orders" were the rule at Liverpool: "trade exceedingly quiet" at Hull; "the timber trade presents a very dull appearance" at West Hartlepool; "less is being done than at any time these twelve months" on the Tyne; "merchants still complain of the dull state of business" at Cardiff. Such are the reports to the *Timber Trades Journal* of Dec. 20th last. And at Glasgow there was, up to the 18th ult. "generally a quiet business, much of what was offered being withdrawn for lack of competition." From Leith comes word of "the dulness of trade, speculative building being practically at a stand still." In London alone does there appear to be any exception to the general tenor we have above described. Pine goods there are helped in price by the destruction of 70,000 pine planks by the great fire at Dalston, about 40,000 of which were owned, it appears, by Messrs. Bryant, Powis & Bryant.

The imports in English, Welsh, Scotch and Irish ports for eleven month of last year compared with the like period of 1883 show a decline at the close of November last equal to 324,000 loads or about 5½ per cent. We subjoin the figures relating to principal ports:

| | | 11 ms. 1884. | 11 ms. 1883. |
|---|---|---|---|
| London | Hewn | 178,032 loads. | 193,017 loads. |
| | Sawn | 1,196,984 | 1,189 034 |
| Liverpool | Hewn | 162,859 | 169,303 |
| | Sawn | 409,186 | 474,000 |
| Hull | Hewn | 84 055 | 86,993 |
| | Sawn | 329,260 | 365,183 |
| Cardiff | Hewn | 278,329 | 226,236 |
| | Sawn | 110,546 | 82,913 |
| Hartlepool | Hewn | 143,837 | 153.346 |
| | Sawn | 148,437 | 162,804 |
| Grimsby | Hewn | 78.906 | 99,547 |
| | Sawn | 126,939 | 130.070 |
| Bristol | Hewn | 19.372 | 19,885 |
| | Sawn | 108,765 | 99,781 |
| Newcastle | Hewn | 48,741 | 65.890 |
| | Sawn | 69.170 | 85,532 |
| Sunderland | Hewn | 87,127 | 115,636 |
| | Sawn | 35,580 | 42,835 |
| Greenock | Hewn | 56,450 | 108,625 |
| | Sawn | 34,940 | 46,547 |
| Glasgow | Hewn | 11,257 | 8,277 |
| | Sawn | 56,326 | 88,572 |
| Tot'l,117 p'rts. | Hewn | 1,872,089 | 1,906,822 |
| | Sawn | 3,915,356 | 4,115,263 |

### THE VALUE OF TREES.

A good lesson in regard to the value of trees as an agricultural product is now being taught the farmers of certain sections of Ohio and Indiana. As most of our readers know, this portion of the country has for many years been the principal source of the black walnut lumber, long so fashionable here, and still very highly prized abroad. Twenty or thirty years ago the black walnut trees nearly covered the ground in some counties, and although the beautiful color and grain of the wood caused a steady demand for it and at good prices, the process of cutting down and sawing the logs was too slow for the ignorant and improvident settlers, who burned over thousands of acres of forests to save themselves the trouble of thinking how to clear the land intelligently. The more sensible of them sawed and split the beautiful timber for framing their houses and building fences, which are worth to-day nearly as much as if they were of solid mahogany; but by far the larger portion was dispersed in smoke and ashes. As the supply of timber diminished the value has advanced, and a combination of speculators is said to have been formed within a few months to secure all the remaining available stock and hold it at its own price.

The agents of this combination, which is supposed to have been formed in England, are now engaged in buying the timber still standing, and are said to have secured already about $5,000,000 worth of trees which are being rapidly cut down and shipped across the ocean. The sudden demand caused by these extensive operations appears to have opened the eyes of the farmers for the first time to the irreparable loss which they have inflicted upon themselves in the reckless destruction of twenty years ago. One, in particular, informed a correspondent of one of the New York papers that he worked almost incessantly for eight years to clear the black walnut trees off his farm, burning more than eighty acres of timber on his own ground. During the thirty years since this wholesale destruction was effected the farm has been constantly cultivated, and is now valued at about $8,000. If it could be put again in the condition in which it was before the clearing commenced, it would be worth $100,000, so that the old farmer's eight years of toil were practically devoted to throwing away his money at the rate of $1,000 a month. It is true that by that means his land was cleared for crops, but the experience of other countries show that judicious thinning, in place of indiscriminate destruction, would have reduced the producing capacity of the farm very little, if any, and would have increased the value of the timber reserved so much as to compensate in a great degree for that cut away, so that the owner might have secured both profits instead of one. The advantages of such thinning, it must be remembered, would be greater with black walnut than almost any other timber, for the irregular twists which are apt to effect a forest tree deprived of its companions, while they would injure the value of pine, much increase that of the so-called fancy woods, by the variety in grain which they produce; and the gnawing of cattle or the effects of wind or lightning, to which trees standing in open fields are liable, are all sources of new beauty, and consequent enhancement of price. As we have said before, we have seen a single black walnut log for which $5,000 was paid, and one gnarled or crooked tree to the acre would give such a farm a great value.—*American Architect.*

### THE HAND DRILL FOR WOOD.

The hand drill or breast drill, originally intended for the hand drilling of metals, has taken its place among wood-working tools, says the *Scientific American.* In many instances it has displaced the bit brace, or at least has filled a requirement left unsatisfactorily supplied by the bit brace. The breast drill may be used for drill, gimlet or bit, and its speed—on the best forms—may be changed at will without a change of speed of the hand. It has its advantage, also, in the more natural motion of the hand—the vertical crank movement instead of the horizontal crank motion. A drilled hole in wood, for whatever purpose, is better than a bored hole. The drill cuts a clean hole; not merely finding its way between the fibres by displacing them, but removing the material entire as it advances. The gimlet form of wood borer is crude at best; a thread at the end is supposed to enter the solid wood, and by spiral friction pull the cutting portion after it. This cutting portion is a twist like a twist drill or auger, supposed to deliver the chips—which it never does deliver.

### TERRIBLE RACE FOR LIFE.

A few days ago the federal mail diligence, which runs between Coire, Chiavenna, and Colico, had a singular escape in the Via Mala. The vehicle was drawn by four horses, and had four inside passengers. The name of the driver is Schwarz, and that of the guard Theuss. Thep had reached the heights of Rouzellen when Theuss, happening to turn round, saw coming after them at full trot a timber-laden waggon, drawn by two horses abreast. It had quite overpowered them, and was pushing them resistlessly down the mountain. The road is narrow and bounded on one side by perpendicular rocks, on the other by the deep abyss through which foams the infant Rhine. There was nothing for it but to keep ahead, and Schwarz, rousing up his team, let them go. Down the hill they speed at full gallop, and in a cloud of dust. The waggon, impelled by its weight, gained on the diligence every moment, and the pole was almost in contact with the back part of the vehicle. In desperation Schwarz whipped his horses, shouted at them like a madman, and urged them to their utmost speed. Just as they reached the level ground the waggon smashed into the rear of the diligence, which was thrown against and luckily retained by the stone parapet. The four inside passengers were safe, though terribly frightened. Theuss jumped off betimes and was unhurt. Schwarz, however, was shot right over the wall. But he held on to his reins, and planting his feet against the rocky side of the gorge, he climbed in safty up to the road.

### The First Steamboat Inventor.

YONKERS, Jan. 12—The building occupied by Reed & Carnrick, manufacturing chemists, the Malting Manufacturing Company, and the New York Pharmaceutical Association, was burned this morning. Several other buildings were damaged. Loss, $200,000.

### Big Fire at Yonkers.

TRENTON, N.J., Jan. 10.—Search among the State records shows that Robert Fulton was not the inventor of the first steamboat. The first steamboat was launched on the Delaware river near Trenton, in 1787, two years before Fulton's steamer appeared on the Hudson. John Fitch was the inventor.

LUMBERING operations are quite lively in Albert County this year, though the cut will not be up to that of former seasons. Most of the old loggers are at work, and all report the season favorable for the handling of men and teams. The recent cold snap has solidified the swamps and rendered them fit for log hauling. There are 70 saw mills in Albert County, but not more than 20 are of any considerable capacity. About 5,000,000 feet of lumber will be got out this winter for the Point Wolfe mill; 9,000,000 for the Alma Milling Company, on Salmon River; and 3,000,000 feet for Mr. Turner's mills, on West river and Turtle creek. —*St. John, N. B., Telegraph.*


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world Price 25 cents a bottle.

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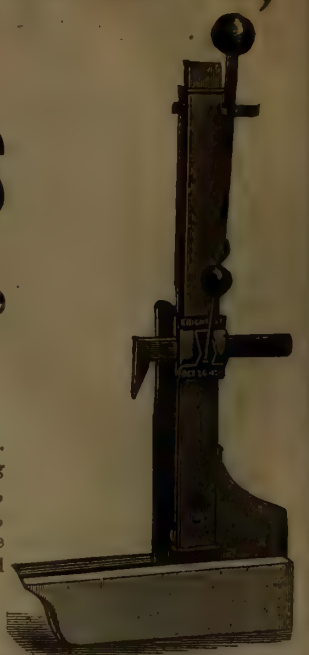

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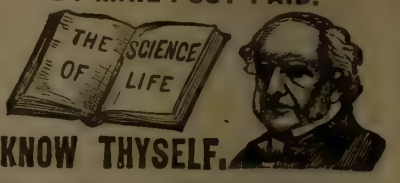


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IT IS THE INTENTION to have a Canadian representation at the INTERNATIONAL EXHIBITION at Antwerp, commencing in May, 1885, and also at the COLONIAL and INDIAN EXHIBITION in London in 1886.

The Government will defray the cost of freight in conveying Canadian Exhibits to Antwerp, and from Antwerp to London, and also of returning them to Canada in the event of their not being sold.

All Exhibits for Antwerp should be ready for shipment not later than the first week in March next.

These Exhibitions, it is believed, will afford favourable opportunity for making known the natural capabilities, and manufacturing and industrial progress of the Dominion.

Circulars and forms containing more particular information may be obtained by letter (post free) addressed to the Department of Agriculture, Ottawa.

By order,

JOHN LOWE,
Secy., Dept. of Agric.

Department of Agriculture, Ottawa, December 19th, 1884. 6d1-6t1

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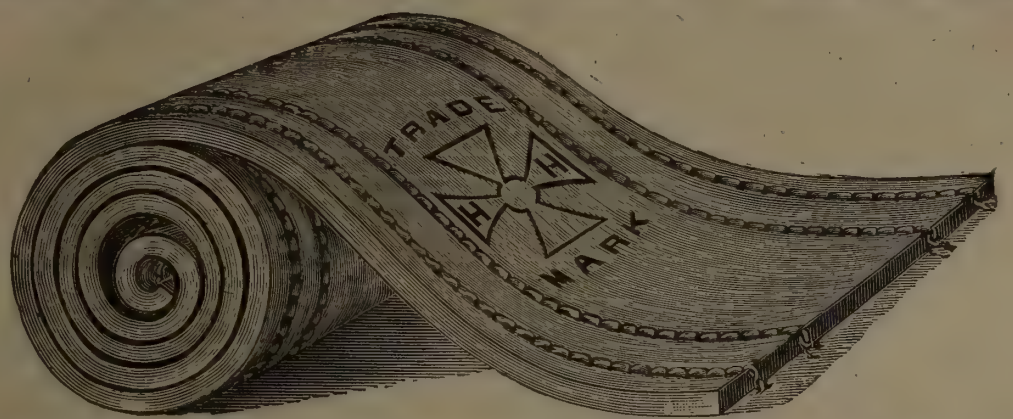
**TESTIMONIAL.**

IRA GOULD & SONS, CITY MILLS,
Nov. 18th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 15 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




**TESTIMONIAL.**

PACK, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

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***The Wholesale Grocers of Canada are our Selling Agents. Order our Coffees through them.*** 12tL1

### CAUSES OF BOILER EXPLOSIONS.

Water, having the property, to a slight degree, of compression by mechanical means necessarily has the property of elasticity; hence, heavy bodies brought in sudden contact with water, or vice versa, the heavier will rebound. This is one of the fundamental principles involved in steam boilers, and which is worthy of lengthy discassion. Supposing the water to be pure *e. g.*, accurately proportioned as to the hydrogen, nitrogen, etc., in its combination, it requires a certain amount of heat to disturb its molecular make up, rendering them gaseous or volatile, the result being steam, but without perceptible color, until brought in contact with the atmosphere (if we examine boiling water in a glass retort or flask, no vapors can be seen); the water, however, like a majority of other bodies, expands by heat before this volatizing ensues; hence, when placed in the boiler it occupies much greater space when hot than before, inasmuch as the iron, or any metal, will not expand in like proportion. In addition to this, water pressing equally upon itself from all points, the boiler has to submit to the weight of the water before ebullition, with the combined pressure of the generating gases or vapor from above — the water being homogeneous throughout and possessing compressibilty to such a slight degree, carries this combined pressure of the water with its accumulating weight or pressure of vapor from above—makes the pressure at the base of the boiler much greater than at the top, until bo ling begins, when these forces are changed instantaneously, and the bubbles of air or gas, in their ascent carry with them increased force, besides which the water being in violent agitation makes the pressure vacillate from one point to another; hence, if any portion of the iron is weak, this unequal pressure is sure to find it, and will eventually burst.

Again, as the water boils and the pressure is constantly changing from one point to another, it is natural to suppose that when it is forced out of true in one place there must be a corresponding depre-sion in another; hence the process of crystalization begins with the use of a boiler, and some morning the country is startled with the report of a violent explosion from causes unknown.

The liability of boilers to explode increases with unequal firing, together with the sudden turning the steam on or off, as the transition of pressure from one point to another is so instantaneous the iron eventually succumbs, and a rupture is the result; these explosions, however, are not so violent and the results as disastrous as when the explosion is the result of other causes, such as alkaline reactions of the water causing a c alcareous deposit in certain portions of the boiler, and an acid reaction which causes another corrosive deposit above, the results of each of which are eventually the same.—*Midland Industrial Gazette.*

### TIMBER SUPPIES OF GREAT BRITAIN.

In a paper on "The present and prospective sources of the timber supplies of Great Britain," read recently by Mr. P. L. Simmonds at a meeting of the Society of Arts, presided over by Sir Charles Tupper, the supply of foreign wood was broadly divided into four classes. These are:—"1. Ordinary soft woods of construction, consisting chiefly of pine and fir, obtained from North America and the North of Europe. 2. Shipbuilding woods, principally oak and teak, with small quantities of greenheart and mora from British Guiana, and a few Australian woods. 3. Hardwoods and furniture woods, which are at present very limited in number, though they might be largely increased by a little enterprise and judgment on the part of cabinet makers and dealers. 4. Dye woods. They are less important now than formerly, owing to the extensive employment of aniline dyes and the chemical improvements constantly making." Mr. Simmonds, added: "There are ninety-five species of forest trees in Canada, of which Ontario, the most southerly of the provinces, has sixty-five. British Columbia is amply supplied with lumber, and, as its facilities for export increase it must develop a large trade. The coast line of British Columbia, both on the island and mainland, is clothed with the finest lumber. The Douglas pine, with its straight, uniform trunks, often 200 feet high, and exceedingly tough and flexible, furnishes the finest masts and spars for the largest vessels." Mr. Simmonds spoke of the attention that had been given of late to the preservation and reproduction of forests in Canada and other colonies. The immense importance of the extraneous supply of wood to Great Britain was shown by the trade reports of the last two years which gave an excess in value of £18,000,000, while other forest products brought the total up to £31,500,000. The increase during the past forty years is shown by the fact that in 1884 the whole quantity of timber imported was under 1,500,000 loads, whereas in 1883 it exceeded 6,640,000 loads. Of that quantity only a little over 1,529,000 came from India and the other colonies. Sir Charles Tupper, in thanking the lecturer, expressed his satisfaction that, however great might be the demand of the country for wood production, England could obtain all needed supplies from one or other of her own dependencies.—*Montreal Oazette.*

### ACCIDENTS IN PUTTING ON BELTS.

A writer in a mechanical paper discoursing of accidents from running machinery, makes the following pertinent remark as to a preventable class of accidents: "One great fault, and one that causes numerous accidents with many workmen, is the manner in which they attempt to put on belts while pulleys are under motion. More people get caught in belting by attempting to do this than in any other way. I have seen men on a ladder trying to put on a 10-inch belt running at high speed, crowding the belt against the pulley, and burning it as well as their hands, and finally having to give it up as a failure; then they had the speed decreased and the belt put on without any trouble. I think that they never calculated how fast they would have to move the belt to get it on easily. There is nothing that agitates my nervous system more than to see some one attempt to put on a belt standing on the wrong side of the pulley. He stands no chance of getting the belt on, and a good big chance of being caught and wound up around the shaft. The right place is to stand on the opposite side of the belt, putting it on as it travels toward you. Having a good foundation to stand on, take the belt in hand and lead on to the pulley, moving the hand as fast as the pulley travels. This is the whole secret. I have seen a little fellow who understood this principle go to a large that three men were tugging at, and easily put it on the pulley at first trial."

### SAWS.

The improvements made in saws form one of the most important steps in modern progress. It is now practicable to run circular end band saws with a capacity of 4,000 feet per minute. Circular saws have even been run in soft wood with a circumferential velocity of 9,000 feet (nearly two miles) per minute; but the difficulties of any higher rate than that we have indicated as the ordinary maximum are due to heating and trembling, especially if the parts are dull and unbalanced. Band saw dodge; they can be made to bear a great number of the moderate flexures required by sufficiently large wheels and can be guided very successfully at the points of entering and emerging, but no practicable amount of skill can make them saw in absolute planes through thick and knotty wood. Circular saws heat and buckle in working, unless just enough distorted when cold to allow it. Reciprocating saws cannot work with a speed satisfactory for modern progress. The teeth of the power saws may hook, and draw the wood indifinitely. Hand-saws cannot be so shaped, for unless the cut is gauged they will take hold too rank. The saws made of three layers, each side cast steel, and the inner layer tough iron, are very serviceable. For woods of a wooly fibre, such as poplar, the teeth of the saw should be of coarse space and set, to effect a clearance and overcome its clinging property. For cutting the harder and close grained woods, such as oak, beech, etc., the saw should be increased one gauge, the teeth should be more upright and space finer, and the set also should be reduced. A cross-cut saw must be sharpened with reference to the wood, whether hard or soft. If not properly set it is evident it will take more power to drive it. For sharpening cross-cut saws for hard wood the file should be at an angle of 45°, for medium wood at an angle of 35°, and for soft wood at 12½. So much for position. There is no difference in the angle of a large or small file. Difference of action in working depends on the fine or coarse cut of the file. We prefer for the purpose of sharpening a good sized file, not less than 4½ or 5 inches, if it is cut equally fine and sharp on the corners. The cutting angles and the tops and faces of the teeth should be beveled exactly alike, and the cuttings should be of even depth, the saw working freer and with less power if the teeth are allowed to get short and stumpy. In clamping a saw for sharpening the jaws of the vise should be covered with sheet lead, about ¼ inch thick. If not so covered the saw will vibrate in sharpening and most probably strip the file. In setting saws with a hammer, the best plan is to fit the saws horizontally on a stud fitted in a wooden frame, having a transverse movement. A small steel anvil with a beveled face should be placed at one end of the frame, and the saw traversed backward or forward for the teeth to overlap the anvil centre, the distance of the set required. A series of short, sharp blows should be given to the hammer in preference to a heavy one.

For setting saws, several different machines have been patented by which the teeth may be set to a uniform level, one of which is made in the form of pliers. The object of setting saws is to lessen friction. The reason of greater power being requisite for cross-cutting than for ripping is that the former is not parallel to the grain. In filing, the edges are, of course, beveled opposite ways. The sharp beveled edge will be outward on the side to which the tooth is bent.

In sawing a large amount of lumber, the thickness of the saw, as effecting the wood, is a matter of consideration; the thinner the saw, too, the less is the power required to drive it. An objection, however, against thin saws worked in tension, is that from their pliability, the cuts are apt to diverge from a straight line. On the other hand with a thick saw blade, the thrust tends to bend it, while the pull on the thin saw straightens the blade. The thin blade in tension must be considered as preferable for hand and machine frame saws as well as band saws. In scroll bands, the thickness and narrowness of the band permit the saw to cut out corners, and segments of circles of extremely sharp curvatures.

A great improvement in the circular saw is the application of inserted teeth, this allowing of ready renewal in the case of any being broken, and that thorough renewals, the diameter of the saw is not permanently reduced by the process of sharpening. In the use of saws care must be taken that the teeth are on the same general level; if the opposite be the case, proper action of all the teeth cannot be secured; they will become more readily blunted, and through the longer teeth being drawn more deeply into the timber than the others, they will be apt to be broken off; power, too, will be lost in driving the saw.—*London Timber Trades Oazette.*

### VIBRATION IN BUILDINGS.

An exchange, in speaking on this matter, says: "At one of the print works at North Adams, Mass., a new and unoccupied building was found to vibrate in consequence of the puffing of a small steam engine sixty feet away, At Centerdale, R. I., it has been necessary to change the height of the column of water flowing over the dam, to prevent the excessive vibration of the adjacent mill. At Amesbury, Mass., out of eleven mills that are near the river, two vibrate when water in certain quantities flows over the dam, but the tremor can be wholly stopped by changing the flow of water. The most frequent cause of vibration is due to the running of machinery, and it has repeatedly happened that a complete cessation has been obtained by increasing or lessening the sped at which the machinery is run. This is not always profitable or possible, and the fact that this vibration results in a loss of power, variously estimated from 10 to 20 per cent., is a strong argument in favor of the construction of one-story mills, which would necessarily vibrate much less than factories having a height of six or eight stories. But it is not alone the loss of power that has to be considered, for in addition there is the straining of the buildiug and machinery, and in the manufacture of textile fabrics this unsteadiness causes a great breakage in the threads, and a consequent damage to the material."

### Oiling Machinery.

An old machinist of nearly 50 years' experience stated in his shop recently that he had run a counter shaft, which he pointed out, on five drops daily of oil, the shaft being 1½ inches in diameter and having three bearings in hangers. "Yet," he said, "that shaft has never squeaked." The shaft carried pulleys which drove a drilling lathe, a polishing and wood turning lathe, a small screw cutting lathe and a grind stone. Most of the weight of the pulleys was between the two hangers, on which he lavished two drops of oil a day. He kept his shaft level and in line. The belts pulled almost equally. The boxes were babbited. The shaft made about 300 turns. The experimenter said that he had tested oils as well as quantity. He believed in clear animal oil—whale or lard. He felt assured that good oil was wasted wherever drip pans were used, and he never used them. There is a text here for establishments to sermonize over, where the shaft bearings drip oil and the floors are soaked with it.—*Industrial World.*

Dr. Pierce's Compound Extract of Smart Weed combines French Brandy, Jamicia Ginger, Smart-Weed, and Camphor Water, the best possible agents for the cure of diarrhœa, cholera morbus, dysentery or blood-flux and colic, or to break up colds, fevers and inflammatory attacks.

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1yL11 PETER HAY, Galt.

## Chips.

BIRCH wood sells on the street at Rhinelander, Wis., at 75 cents a cord.

THE saw mills at Fort Edward, N. Y., did not shut down until Dec. 22nd.

IT is stated that the T. W. Harvey Lumber Company will bank about 12,000,000 feet of logs this winter.

A LOCAL authority estimates the amount of standing pine in Calcasieu, La., parish at 4,000,000,000 feet.

DECEMBER 29 a lumber freight rate of 18½ cents from Eau Claire, Wis., to Missouri River points, went into effect.

T. F. THOMPSON, lumbering in Iosco county, Mich., will bank 2,000,000 feet of logs into the Au Sable river this winter.

THE schooner Frank L., from Nova Scotia to Boston, put into Portland, Dec. 26th, with loss of deck load of lumber.

A DULUTH, Minn., lumberman claims that at leat 150,000,000 feet of logs will be cut in the Duluth district this winter.

AT Jackson, Mich., a pulp mill owner is said to have contracted for 2,000 cords of poplar, to be furnished by a man in Dundee.

JOSEPH SWEATMAN, of Door county, Wis., has a contract for getting out birch broom brush for sweeping the streets of Chicago.

THE shingle cut on the Saginaw River in 1884 amounts to 261,266,750, of which 29,614,000 are still piled on the docks.

THE schooner Champion, from St. John, N. B., for Newport, R. I., put into Portland, December 24th, with loss of the deck load of lumber.

THE schooner E. & G. W. Hinds, from Calais, Me., for New York, arrived at Portland, Dec. 24th, with loss of part of her deck load of lumber.

THE extensive barrel factory of E. M. Jewett at Buffalo Plains, N. Y., was burned Dec. 30th, causing a loss of about $100,000; partially covered by insurance.

THE lumber shipments from Dalhousie, N. B., for 1884, were 18,235,140 feet of deals, 2,953 tons of birch timber, 1,476 tons pine timber, and 411 tons spruce timber.

PINE logs have recently been contracted for at Orange City, Texas, at $4.50 to $4.75 per thousand feet, which is thought to indicate the price which will rule for the coming season.

IN the steamer Cumberland, recently launched from a Bath, Me., ship yard, the panels in the ladies' cabin are of California redwood, the other finishing in that cabin being of mahogany and rosewood.

SEVERAL large gangs of shantymen left Ottawa on Dec. 31st by special train on the C. P. R. for the Nipissing district. They all hired at an advance on last year's rate of wages.—*Citizen.*

THERE is an abundant supply of labor in the Saginaw Valley for a plentiful scarcity of work. Operators in the lumber woods seem persistent in their determination of curtailing the log output; and hence the slight demand for men. —*Lumberman's Gazette.*

THE J. E. Potts Salt & Lumber Company will, this month, put a third locomotive on its logging road, northwest of the Au Sable river, Mich. It is intended to bank 35,000,000 feet of logs this winter from its five camps now in operation. The company employs 240 men.

A MAN named Barker in the employ of J. R. Booth was rolling saw logs in one of the Victoria Lake shanties, when the pile in the rear of him started, rolled against him, and jammed his his head between two logs, killing him instantly. He was a native of England, aged 29 years, and had been in the country about three years. This was his first year in the shanty.


**A New Way to Pay Old Debts.**

Shakespeare tells how this can be accomplished in one of his immortal plays; but debts to nature must be paid on demand unless days of grace be obtained through the use of Dr. Pierce's "Golden Medical Discovery." It is not a "cure-all" but invaluable for sore throat, bronchits, asthma, catarrh, consumption, and all diseases of the pulmonary and other organs, caused by scrofula or "bad blood." Scrofulous ulcers, swellings and tumors are cured by its wonderful alterative action. By druggists.

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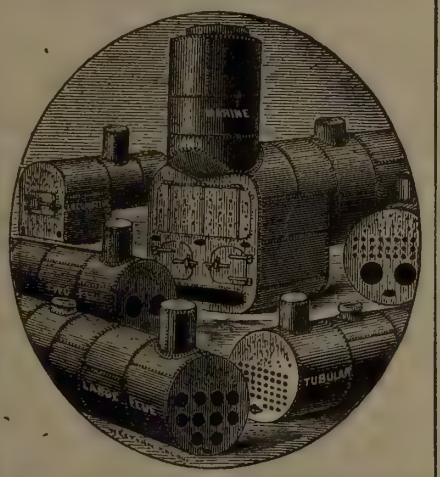

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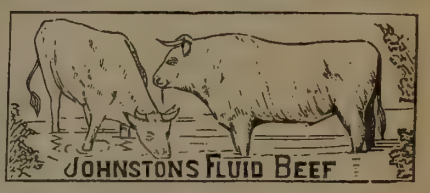


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DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY THE

Peterborough Review Printing and Publishing Company (Limited), Peterborough, Ont.

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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion

All communications, orders and remittances shoulp be addressed and made payable to THE PETERBOROUGH REVIEW PRINTING AND PUBLISHING COMPANY (LIMITED), Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS. SAMUEL DEACON & CO., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., JAN. 15, 1885.*


A FIRE at Buffalo on Jan. 11th destroyed Hoeffler Bros. planing mill on Elm street. Loss $20,000, insured for $10,000. Forty men are out of employment.

MR. PRENEVAU has commenced preparations for the erection of a steam saw mill at Tucker's Landing, on Belmont Lake, Peterborough County, Ont.

MESSRS. Mills Bros. new shingle mill that they recently erected a little way np the river from Kinmount, Ont., at a cost of over $3,000, was destroyed by fire on Jan. 3rd. There was only $1,000 of insurance on it.

QUITE a number of teams arrived at the lumber offices yesterday seeking engagement, but the lumbermen were somewhat reluctant to engage teams owing to the soft condition of the weather and the probabilities of bad roads in the upper district. Should the soft weather continue lumbermen will be in a dilemma about getting out their logs.—*Ottawa Free Press.*

EACH of the chains in the large floating bridge connecting Portsmouth and Gosport, which have recently been made in England, is 640 yards in length, and consists of nearly 5,000 links, the diameter of iron being 1 11-16 in., and the weight of each 21 tons, tested to a tensile strain of 40 tons, or twenty per cent over Admiralty test, the actual breaking strain being proved to be 70½ tons. Each chain was loaded upon a carriage weighing 11 tons, the load for road transit being 32 tons.

AT Bathurst, N. B., on the Bay of Chaleurs, during the opening season of 1884 there were loaded thirty-eight vessels of 19,122 tons, which carried 14,901,282 superficial feet of deals, ends, scantling and battens, 1,080,692 feet of boards, 481,328 pieces of palings, 4,000 feet of plank, 985,100 laths, 10,000 shingles, 30 spars, 1,069 sleepers, 10 tons birch timber, 130 tons pine timber, and 20 tons spruce timber. These shipments were all made by K. F. Burns & Co., R. A. & J. Stewart, and James Buttimer, who loaded respectively 20, 16, and 2 ships.

## AMERICAN TARIFF ON LUMBER.

The New York *Herald* furnishes an argument in favor of the admittance of Canadian lumber into the United States free of duty. Of course, the motive which our enterprising contemporary has in view is a selfish one. It is based on self preservation, that first law of nature, which used to be distilled into us all at school, from the head lines of our copy books. The *Herald* fears that the wasteful cutting down of the American forest trees will produce ere long, a wood famine, and thinks that Canada ought to have the chance of destroying her supply for a while. This waste of Canadian trees, it thinks, could be superinduced if the United States Government were to repeal the tariff duty and admit Canadian lumber free. No doubt there is a reason in the *Herald's* premises, but we question much whether our people would be short-sighted enough to embark on a wholesale system of cutting the best trees in the country merely for the purpose of stocking a market which, from all accounts is very much overstocked now. The prices realized would be ruinous, and the experience gained in the British markets, during the last few years, ought not to be lost on us, nor will they. The pith of our contemporory's remarks will be found in these paragraphs:—

"Apart from the comparatively small number of men interested in lumber investments, there is a feeling that something should be done to protect what of the forests of the country remains from wasteful cutting, and to encourage the planting of forests wherever practicable and economical. Not that the price of lumber is high. It is not high just now, by reason of the large stocks on the market. But the present policy, state and national, respecting the forests is recognized as producing much mischief and as unquestionably leading up to great evils unless a more settled and intelligent system be introduced. Just now the lumber trade is in no better condition than the iron or the textile industries, and the proper regulations for cutting planting will not cause its speedy revival. That is not the main point to be considered. The main point is that the future good of the whole country requires that forests at once should be preserved or planted wherever science may demonstrate their expediency.

"To wait, as many suggest, until the scarcity of good lumber will so enhance the price as to allow the profitable cultivation of trees would be shortsighted. Wood in all its forms is so extensively used that even a moderate rise in price will create much inconvenience and loss. Doubtless invention would be stimulated to find substitutes for wood, such as steel railroad ties, but it could not wholly fill the gap that would be created. The necessary rise in price, moreover, could hardly be expected for some years to come, whereas the need of enlarging the sources from which lumber may be drawn is immediate. The simplest way would be to repeal the tariff duty, and this we would urge, apart from any question of free trade or protection."—*Quebec Chronicle.*

## A VALUABLE INVENTION.

Mr. M. D. Campbell, head miller in the Deseronto flour mills, has introduced into that establishment a new invention of his own to be known as "Campbell's Dust Collector" and for which he has taken out the patent for Canada and the United States. It has been severely tested and works most satisfactorily. We had the pleasure of examining one in the sash shop the other day which had been constructed by Mr. Geo. Field, under the supervision of Mr. Campbell. It stands about five feet high, is four feet long and three feet wide. In front of the machine is a fan, so attached as to draw dust, etc., through an opening in the bottom of the machine into a round keel about three feet in diameter and covered with fine wire. This reel revolves slowly and has under it a conveyor between which and the reel there is placed a brush revolving in a direction the reverse to that of the reel, thus keeping the wire clean and brushing the dust into the conveyor below by which it is carried to one side until it drops into a spout. The new machiues will be built by the Rathbun Company and will be made of all sizes. They can be used in flour mills in connection with purifiers and in all factories where planing machines, &c., are used. They are evidently destined to work their way into public favor and prove themselves a source of profit to the lucky inventor.—*Deseronto Tribune.*

## NEW BRUNSWICK SHIPMENTS OF LUMBER.

The St. John, N. B., *Globe* prints a resume of the deal and timber exports of the city of St. John during the past year. There has been a decided falling off in the shipments of deals to trans-Atlantic ports, the amount being very nearly 20,000,000 superficial feet less last year than in 1883. Compared with the returns of 1882 the decrease has been about 40 millions, the figures being:—

| | |
|---|---|
| 1882 | 201,413,717 sup. ft. |
| 1883 | 181,518,132 " |
| 1884 | 162 080,218 " |

As regards timber, the *Globe* says that in birch here has been some increase, but pine remains in about the same position as during the last two years. The returns for 1884 are birch, 13,995 tons; pine, 3,646 tons. In addition 100½ cords of lathwood and 68 m. palings were sent to Great Britain. These shipments gave employment to 225 vessels, representing a tonnage of 187,308 tons—a decrease of 45 vessels and 18,003 tons, compared with 1883.

The following returns are printed in the *Globe* from the principal ports in New Brunswick.

BATHURST.

| Year. | No. vessels. | Tons. | Deals, s. feet. |
|---|---|---|---|
| 1883 | 53 | 27,483 | 23,415,607 |
| 1884 | 38 | 19,122 | 14,901,282 |

BAY VERTE.

| Year. | No. vessels. | Tons. | Deals, s. feet. |
|---|---|---|---|
| 1883 | 3 | 1,370 | 1,350,000 |
| 1884 | 5 | 2,066 | 2,100,000 |

DALHOUSIE.

| Year. | No. vessels. | Tons. | Deals, s. feet. |
|---|---|---|---|
| 1883 | 44 | 26,847 | 18,726,737 |
| 1884 | 43 | 23,782 | 18,235,140 |

MIRAMICHI.

| Year. | No. vessels. | Tons. | Deals, s. feet. |
|---|---|---|---|
| 1883 | 278 | 172,519 | 149,004,441 |
| 1884 | 214 | 126,030 | 108,274,864 |

RICHIBUCTO.

| Year. | Deals, s. feet. |
|---|---|
| 1883 | 21,090,150 |
| 1884 | 12,205,700 |

COCAGNE.

(Included last year in Richibucto.)

| Year. | No. veseels. | Tons. | Deals, s. feet. |
|---|---|---|---|
| 1884 | 2 | 839 | 737,405 |

Making a fair allowance for Shediac, and any other little port from which an odd cargo might have been sent, the total deal shipments from New Brunswick to trans-Atlantic ports last year would be about 328,534,600 feet, compared with 404,287,676 feet in 1883, and 381,990,174 feet in 1882. The falling off of shipment from Miramichi has been enormous.

## OPERATIONS IN THE SOUTH RIVER DISTRICT.

There was little or no snow in the South River district up to the 7th inst. The South River is a tributary of Cake Nipissing.

Lumber cut in this district is towed across Lake Nipissing and transported by rail from North Bay to Papineauville, via the C. P. R.

A hired team, in the service of Fraser, Serany & Co., was accidently drowned while crossing Lake Nipissing recently.

Some 26 car loads of horses were shipped from this city, via the C. P. R., on Tuesday last. They were destined for various points between Ottawa and Thorncliffe, and are intended for shanty purposes.

In the South River district this season, Mr. Wm. Allen will take out from 150,000 to 270,000 logs. P. and H. Colton's cut will average between 200,000 and 225,000. Booth & McCann will take out 40,000 standards, together with last year's drive of logs, while Fraser, Sereny & Co. will cut 30,000 standards, and also take out 50,000 cubic feet of timber.—*Ottawa Sun, Jan. 9.*

**Despise not the day of Small Things.**

Little things may help a man to rise—a bent pin in an easy chair for instance. Dr. Pierce's Pleasant Purgative Pellets are small things, pleasant to take, and they cure sick headaches, relieve torpid livers and do wonders. Being purely vegetable they can harm do one. All druggists.

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Dec. 30, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C.:—

309,868.—Auger—H. Alson, Olesburg, Kan.

309,902.—Bit stock—J. Watson, Buffalo, N. Y.

310,060.—Chuck lathe—H. Johnson, Boston, Mass.

309,871.—Lathe tool—J. M. Palmer, Chicago, Ill.

309,825.—Log and raft coupling—A. K. Doe, Stillwater, Minn.

309,857.—Planer motion, variable, reciprocating—C. A. & G. Juengst, New York, N. Y.

310,075.—Saw, drag—O. S. Newcomb, Hesperia, Mich.

309,875.—Saw sharpening device—R. E. Poindexter, Indianapolis, Ind.

308,870.—Saw tooth swaging machine—J. Orm, Paducah, Ky.

PATENTS ISSUED JAN. 6.

310,538.—Lathe, multiplex turning—E. J. Pennington and A. E. Gatchell, Cincinnati, Ohio.

310,260.—Lathe tail stock—A. Dodds, Grand Rapids, Mich.

310,163.—Plane—W. E. Achenbach, Reading, Pa.

310,232.—Lumber stacker—W. T. Smith, Bozeman, Ala.

310,473.—Plane bench—W. Steers, Brattlebrough, Vt.

310,349.—Plane, chamfering—R. V. Wicks, Brooklyn, N. Y.

310,190.—Saw mill dog—E. & C. M. Drake, Gardiner, Me.

310,491.—Sawing machine, scroll—A. Ball, Seneca Falls, N. Y.

## BETMONT.

SAW MILL REBUILT.—Coon's mills, near Rush Point post office, in the township of Belmont, which were totally destroyed by fire last October, have been rebuilt on an enlarged plan. The new machinery, boiler, engine, saws, &c., are all of the latest improved style, and the capacity of the mill is thereby greatly increased. Mr. Coon is now resuming work determined to make up for lost time.

### The Square Man.

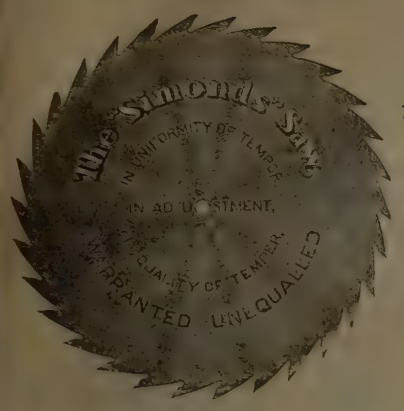
The following is Josh Billings' description of a "square" man in lumber parlance:—"The square man mezzures the same each way, and has no wainy edges or shaky lumber in him. He is free from knots and wont warp. He is clear stuff, and I don't care what you work him up into, he won't shrink. He is among men what good kiln-dried boards are among carpenters—he won't crack. It makes no difference which side you approach him, he is the same bigness each way, and the only way to get at him is to face him. He knows he is square, and spends no time in trying to prove it."

### Tree Felling With Dynamite.

The London *Lumber Trade Journal* states that a new method of tree felling by dynamite has been successfully introduced. A cartridge of the explosive substance is placed in a channel board directly under the tree to be operated upon, and when exploded the tree is simply forced up bodily and falls intact on its side. If this system works as well as it is represented to do, and the tree is not fractured by the force of the explosion, a large proportion of valuable wood at the base of the trunk can be utilized which is now lost. For clearing forest properties to convert into arable land, this method appears admirably adapted, as it brings up the root of the tree at the one operation, and dispenses with the tedious and costly process of grubbing the roots of the felled timber.

A DESPATCH from St. Paul says:—The total cut on the northwestern lumber region last year was 2,534,298,000 feet of lumber, 1,059,354,000 shingles, and 630,080,780 lath. The increase over 1883 was 447,812,000 feet of lumber, 302,994,000 shingles, and 85,800,000 lath.

# ST. CATHARINES SAW WORKS!

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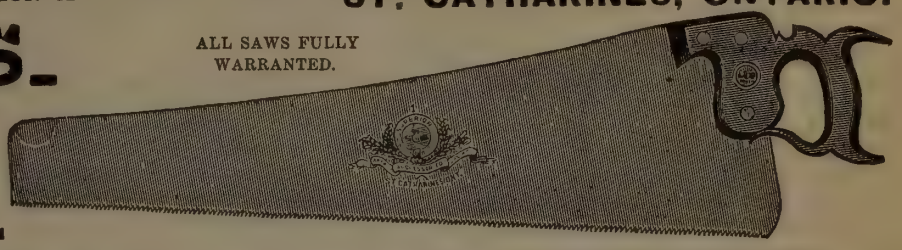

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**"SIMONDS" SAWS.**

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Which took every honor awarded at the Centennial Exhibition.

*THE CELEBRATED*

## Lightning Cant Dog.

PETER ROBERTSON, Chaudiere, Ottawa.

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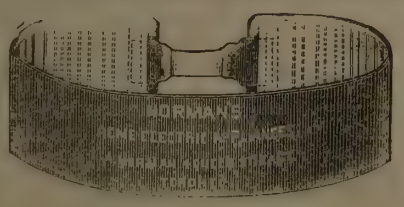
### Terrific Boiler Explosion.

WILLIAMSPORT, Pa., Jan. 12.—The boiler in the saw mill of Weigel & Babst, opposite here, exploded this afternoon. Peter Houser and Thomas Purvis were instantly killed, and seven others seriously injured. Daniel Babst, one of the proprietors, was so badly scalded that one of his legs had to be amputated. He is not expected to recover. The force of the explosion was terrific, not a timber of the mill was left standing. A visitor to the miil said to fireman Purvis this morning. "That boiler isn't safe." Purvis replied, "I'll risk it." It is stated that the boiler was full of leaks and two flues plugged.

### A New Application of Paper.

Wm. J. Griffin, of the Holyoke envelope works, has invented and patented a new application of paper. It is designed as a substitute for wood in blocks or bars wherever a knife is used in a mechanical cutter. In the shape of bars, it has been put into every paper mill in his district where an undercut cutter is used. The Whiting, Albion, Winona, Nonotuck, Massasoit, and other mills have it. The invention is also applied to blocks for shoe cutting and cigar making. At the Holyoke envelope works it is used in cutting blocks in the envelope cutters. One outlasts a dozen of the formerly used wooden blocks. In its manufacture, sheets of paper are compressed by enormous force into blocks or bars, as wished, harder than wood and far more durable. Mr. Griffin has just received his patents on the invention, and will now introduce them outside of Holyoke.—*Holyoke Transcript.*


• • • • Pile tumors cured in ten days, rupture in four weeks. Address, World's Dispensary Medical Association, Buffalo, N. Y.

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NERVOUS DEBILITY, Rheumatism, Lame Back, Neuralgia. Paralysis and all Liver and Chest Complaints immediately relieved and permanently cured by using these BELTS, BANDS, AND INSOLES.
Circulars and Consultation FREE.

A FEW SIMPLE TESTIMONIALS THAT SPEAK FOR THEMSELVES.

OTTAWA, September 3rd, 1883.

A NORMAN, ESQ.—Dear Sir,—I have experienced considerable benefit from your appliances. I feel stronger and better every day.

Yours truly, R. E. HALIBURTON.

PETERBOROUGH, October 15, 1883

A. NORMAN.—Dear Sir,—Soon after I commenced to use your Electric Appliances, they opened my bowels, cured my cough and c ld, relieved my head and considerably relieved my catarrh in consequence. The discharge from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good.

Yours truly, J. GREEN.

CURATIVE BATHS, Electric, Vapor, Sulphur and hot and cold Baths. Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them, at

4 Queen St. East Toronto.

L14-1y A. NORMAN, Proprietor.

ESTABLISHED 1856

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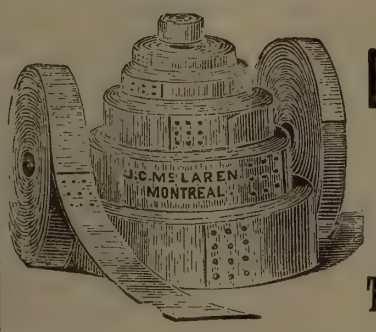


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## POPLAR AS A BUILDING TIMBER.

At this time, when so much interest is being manifested in the merits of the poplar when used for building purposes, it may be profitable to consider shortly in our columns the cost of producing the various items required in house-building, and compare it with the foreign timber which has so successfully of late years competed with our home produce. Before going into figures some of its properties may be generally stated as helping in arriving at a proper comparison with other woods.

In the case of flooring it has been a matter of surprise that poplar has decreased to such an extent in popularity. It is most essential in all kinds of wood for flooring that it should be thoroughly seasoned, but especially is this so in the case of poplar, which shrinks in the drying to a very great extent, but when once thoroughly dry will not warp or twist, as is the case with some foreign battens and it is with the greatest difficulty that dry poplar will ignite—in fact, by itself it will rarely make a fire even after being lighted up by some other combustible, but will gradually die out. Poplar, when seasoned, has also in the eyes of every well-regulated housekeeper another very important property, which is its nice white color for flooring, and the closeness that the grain has acquired in the drying makes its white color easily retained by scouring, which color it retains for many years, being very unlike the foreign wood, which soon becomes musty and dirty, which no amount of scouring can take out. It may be judged how much poplar shrinks in the drying, and how fine the grain must necessarily become, that thoroughly seasoned only weighs about one-half of what the green timber weighs.

It may here be stated that according to eminent authorities its tenacity is from 6,000 to 7,000, camparing very favorably with other woods generally used in house construction.

It should not be forgotten that poplar, when used in a damp building, is very liable to go to decay, but poplar is certainly not an exceptional wood in this respect, as all woods are liable, more or less, to decay when exposed to dampness.

A very important feature in poplar, when comparing its cost as a building wood, is its lightness. When the quality can be combined with moderate strength, as it is in poplar, its value in house construction is very much enhanced. Its lightness acts advantageously in two ways: first, as regard cost and carriage; and secondly, effecting the desirable object of not overburdening a house with heavy-weighted timber. The average weight of seasoned poplar is about eighty cubic feet to a ton, which is considerably lighter than Norwegian whitewood. Of course its heavy weight when in a green state necessitates its being converted and seasoned as near as possible to its place of growth, otherwise extra carriage on double the weight adds very materially to its cost, and when competing with foreign battens it requires every economy to be exercised.

The great length to which poplar grows, and carrying with it its girth, enables the sawmiller to procure extreme lengths suitable for joists, beams, or rafters, and its parallel growth enables the conversion to be done with the smallest percentage of waste, which is one of the principal considerations in producing scantlings. When converting poplar into the various items for housebuilding, so many are these sizes that only a very little study is required to utilize the whole tree.

When cutting up a poplar tree into sizes suitable for building material, there need be very little waste, as the flooring board sizes being as thin as from 1 in. and upwards, by breadths from 6 in. to 7 in., and lengths being no great object, the thick slabs may all be utilized, as recommended above. It effects a considerable saving to have the timber converted at a saw mill as near as possible to the place where it has grown. It is well to have the tree crosscut in suitable lengths from 12 feet and upwards, joists, rafters, etc., being wanted in such various lengths, and the oftener a poplar tree is crosscut, the more profitably does it cut up. The average amount of over-measure in fairly well-grown poplar is about 25 per cent.; of this there is thrown off as entire waste when cutting thick sizes nearly one-half, but in the case of building sizes, which are of such a variety, the amount of slab waste with careful study should not be more than five per cent.; this leaves a clear gain of 20 per cent., or one fifth of its value. No doubt, in the case of so cheap a wood as poplar, this does not amount to more than from 1d. to 1½d. per foot, as the cartage from the woods and other labor expenses have to be paid on the ¼-girth measure. The cost of sawing up poplar into such sizes as are required in building, running from 6x1 for flooring up to 10x3 for joists, averages upon the whole, as near as may be reckoned, somewhere about 3d. per foot cube on the converted sizes.

The whole of the scantlings should be immediately piled up for drying, and in the course of six months they will have dried sufficiently as to have reduced the weight so far as to permit their being conveyed by rail or otherwise at a weight of from 70 ft. to 80 ft. to a ton; and poplar being a wood which is produced in almost every part of the country, it is unnecessary to send it off from any particular spot to an extreme distance. In the case of the flooring boards they should be thoroughly seasoned before being planed, which, if done, will enable them to put on a much smoother surface than foreign battens; they must not, however, be planed in a green state, as its then fibrous nature prevents the irons from leaving a nice surface, and the shrinkage in seasoning, after being planed, causes it to get very rough. There are no other expenses connected with the conversion of poplar, and it will thus be seen that with careful cutting up all sorts of scantling can be produced at a cheaper price than what even foreign white battens can be delivered to any inland town; we have, therefore, a superior wood, in every respect cheaper, ready to hand, and this fact only requires to be known and brought prominently before the attention of architects and builders by our English timber merchants.—*London Timber Trades Gazette.*

## SCARCITY OF TIMBER.

The time was, and that not over twenty-five years ago, when lumbermen could get any quantity of timber for a mere song. Some of the old farmers were at one time thankful when they came and took it out of they way, as it saved them the trouble of ctting and burning it. These times are gone, and timber, either for Quebec or for saw logs, is every year be coming scarcer, and prices are now being paid which, if any one had predicted them a few years ago, would have been deemed incredible. One old resident recently sold a single pine tree for $14, and another sold three of them for $40. Such prices are enough to make the old settlers wish that they had been content to let their timber stand. Other kinds of timber sell well. Large quantities of firewood are being taken out and that will soon become scarce. It was indeed time for the Provincial Government to resort to measures for protecting the timber that remains, and also making efforts to promote tree culture if the inhabitants are not to be starved out; but it will take all their skill to succeed.—*Fenelon Falls Gazette.*

## PULLEYS AND GEARS.

In American practice, pulleys have led gears for more than thirty years. There was a time when no large establishment driven by power could be engaged to run except by gearing; all the main shafting was geared to the prime mover, and if that was a steam engine a jack wheel instead of a belt imparted motion from wheel or crank shaft. The writer remembers a set of cards in a cotton mill; the cylinders, licker-ins, doffers, and even the doffer combs, were all connected by gear wheels. Years after the grinding, wearing, noisy main gears were superseded here by the smoothly running pulleys and belts, the English adhered to the toothed wheel system. It had its value; it has its advantages, and the gear wheel is taking its place as a valuable adjunct to machinery of all kinds. One of these advantages is its absolute security; "give a tooth take a tooth" is the old adage in mechanics, and is an absolute law in gearing; there is no slipping and no failure in transmission of power.

But there were objections to the gear, and although some have been removed, others remain. One of the great objections to the gear, as it was formerly made was its tendency to crowd apart—the two gears working against each other rather than with one another. But with the recent improvements in gear teeth cutting that objection is entirely removed; gears properly cut run together with no inclination whatever to come apart, except with a speed that developes contrifugal force. Some recent experiments seem to prove that the forcing apart tendency of well set gears is reduced to *nil*; while on the other hand the connection of pulleys by belts necessitates a very strong pulling together, proportioned to the diameter of pulleys, width of belts, distances apart of the pulleys, and their relative positions.

Another objection to the use of gears is where the reach is considerable between the shafts; in which case the only connection feasible is by means of one or two intermediates, as the direction of revolution may demand. If the two connected shafts are to revolve in the same direction, a single intermediate may be used; but it is evident that the diameter of this wheel must be sufficient to reach between the peripheries of the two other wheels, else three intermediates must be employed. Sometimes these transmitters—or otherwise idlers—are unhandy, and then the advantage of pulleys and belts is apparent. The belt and pulley have a reach that is impossible without a train of gearing or a belt connection of links of machine chain. Except for this lack of reach it is evident that the gear connection is superior in itself to the pulleys and belt, which at its best must be considered a makeshift for an absolute transmitter.—*Scientific American.*

## A LARGE BUSINESS.

Deseronto, as you approach it from the water, seems to a stranger like a full fledged city. For fully a mile along extend wharves stocked with lumber, fine storehouses, etc., where but fifteen years ago but one small pier was the only landing place. The population has steadily increased until now it numbers about 2,500. Down near the steamboat wharf stands an old rookery of an office wherein daily sits the man (Mr. E. W. Rathbun) to whose success can be attributed the building up of the place, surrounded by a perfect network of telegraph, telephone wires and electric bells. He controls probably the most extensive business of any man in Canada to-day. Fully 1,200 men are in his employ, and his business all over the continent. Shipments of doors go from here to Liverpool, Australasia and Glasgow; flour to South America, and lumber to nearly every state in the Union. His last speculation has been the taking hold of the Napanee & Tamworth railroad, which road, under his management, is already doing a good business, and although the terms of contract read that Napanee shall be the terminus of the road, yet the chances are that the Deseronto line will be extended to Napanee to meet it, and thus virtually make Deseronto the terminus. He is always happy in his old office. His reply to the question "Why don't you build new offices?" being "I haven't time, yet I believe the company intend to erect offices which will probably be grand and extensive."—*Kingston News.*

## WOODEN PIPES.

Pipes made of wood can be made strong enough to contain water or steam under pressure, by winding iron bands about them to resist the bursting strains. The pipe is made in sections of about eight feet in length, from the best of white pine, by first boring them out nice and smooth with an auger that will bore straight from one end to the other. The outer surface is then removed by the turning lathe, leaving it uniform in size and free from sap. They are then laid away to season in a drying room. When they are ready to be banded, the iron bands are drawn around spirally by steam power so tightly that the band is imbedded in the wood and appears like a screw threa, except at the end where the band is wound around three or four times to strengthen the chamber that has been bored out to receive a thimble where the joints are to be made so that they may be driven together tightly without weakening the joint. The thimble is made of seasoned timber turned about an eighth of an inch larger in the middle than the chamber in the ends of the pipe, so that they must be compressed where the sections are driven together, making in this way a perfectly tight joint without packing of any kind. The weight of the iron banding, and the nearness of the bands to each other, are easily regulated by the amount of pressure that the pipe is to be subjected to in actual use, and where the bands are likely to corrode, they should be passed through a preparation of coal tar, before they are wound on the pipe. After the pipe is laid, it can be tested with hydraulic pressure and then given a heavy coating of asphaltum cement; and where the water is impure, or impregnated with acid, so that the threads of an iron pipe are cut out in a short time, these wooden pipes can be laid by a skilled workman so as to remain air tight, without the liability of bursting or become disjointed.

## TO SAW TOUGH TIMBER.

All tough timber, when the logs are being sawed into lumber of any kind, whether scantling, boards or planks, will spring badly when a log is sawed in the usual way, by commencing on one side and working toward the other. In order to avoid this it is only necessary to saw off a slab or plank, alternately, from each side, finishing in the middle of the log. We will suppose, for example that a log of tough timber is to be sawed into scantling, a uniform size. Let the sawing be done by working from one side of the log toward the other, and the ends of the scantling will all be of the desired size, while at the middle some of them will measure one inch broader than at the ends. After the log has been spotted, saw off a slab from one side, then move the log over and cut a similar slab from the opposite side. Let calculations be made by measuring before the second is cut off, so that there will be just so many cuts, no more and no less, allowing for the kerf of every cut. If the log is to be cut in three-inch scantling for example, saw a three-inch plank from each side, until there is a piece six and a quarter inches thick left at the middle. The kerf of the saw will remove about one-fourth of an inch. When a timber log is sawed in this way, the cuts will be of a uniform thickness from end to end. Now turn the log down and saw the cuts the other way in the same manner, and the scantling will not only be straight, but of a uniform size from one end to the other, if the saw be started correctly.—*Sine's Lumbermen's Form Book.*

**Don't Wear Cumbersome Trusses**

when our new method without use of knife, is guaranteed to permanently cure the worst cases of rupture. Send two letter stamps for references and pamphlet. World's Dispensary Medical Association, Buffalo, N. Y.

A FIRE at Summit, Mich., December 12th, burned 250,000 feet of lumber belonging to W. H. Raiguel & Co., of Grand Rapids, 40,000 feet owned by A. B. Mitchell & Co., and a box car owned by the Flint & Pere Marquette railroad.

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh. Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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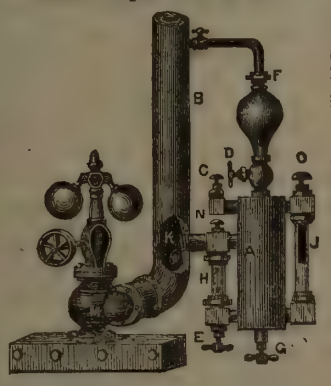


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10—MEDALS—10

—FOR—

# TENTS, MARQUEES,

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P. O. BOX 345.

OFFICE OF THE INDUSTRIAL EXHIBITION ASSOCIATION,
TORONTO, MARCH 10, 1884.

*The National Manufacturing Co'y, Ottawa:*

GENTLEMEN,—In reply to your enquiry, I beg to say that the highest awards made at the Industrial Exhibition for the years 1881, 1882, and 1883, for Tents, Marquees and Flags, were to your Company, being a Silver Medal for each year. Last year, 1883, was the first in which a medal was specially offered for Camp Furniture and Equipages, and it was awarded to the National Manufacturing Co'y, of Ottawa.

I am, your respectfully,

6mL20 H. J. HILL, Manager and Secretary

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

JAN. 10.—Receipts of lumber by railway have fallen off during the holiday season fully one-half, but the recent mild weather has had the effect of stimulating the building trade materially, and quite a number of brick and brick clad buildings are in course of erection. Some of the retail dealers from whom I made enquiries state that they have a fair run of trade, others call it dull, and considerable cutting in on prices for small bills is being done. Some grades, especially of coarse shipping cull boards and plank are quoted at extremely low figures, one contract having been taken at $8.82 per M for 150,000 feet of S. C. boards, which means about $6.82 on car at mill door. Not much margin for profit, I imagine, at that figure. Tenders are now being taken by our corporation for 3 in. plank for sidewalk purposes, which is specified to be gang cut, which will tend greatly to limit competition, and should the present scarcity of snow continue parties now tendering for summer delivery may get badly left. The prospects for a considerable advance on present prices may be considered as morally certain, and it is devoutly to be wished for that nature may do for the lumberman that which he is unwilling to do for himself. Former quotations may be continued, any alteration has only been in car load lots.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |
| B. M. | |
| 1½-inch flooring, dressed | 30 00 |
| 1½ " " rough | 16 00 |
| 1½ " " dressed | 25 00 |
| 1½ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

JAN. 9.—The weather we have been having lately has been mild, wet and unseasonable, and if it continues much longer it will no doubt seriously effect the making of logs in the woods, and it will have an effect on general trade that will not tend to improve matters. A few of the large dealers in the United States have been making enquiries for lumber lately, and they state that the prospects for business are not at all bad. It is thought that by summer or fall there will be quite a healthy tone to the market. Deals are still lively and large quantities have been placed at high prices, and prices generally for lumber do not show any depreciation at present. We quote prices ex yard as follows:

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Bass, " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 75@2 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

## WINNIPEG.

The *Commercial* of a recent date says:—Lumber is one of the slumbering branches of trade at present, and the past week has been almost a blank. The appearance of snow has somewhat cheered those who have gangs in the timber woods at present, and the hope of a good logging season is now general.

## BOSTON.

The *Journal of Commerce* of Jan. 10th says: Trade is naturally very quiet, the turn of the year curtailing operations still more. Eastern lumber is unchanged, except spruce, which latter is a litttle firmer owing to reduced stocks consequent upon the open and generally mild season thus far. Hemlock boards are likely to rule firm, with a moderate demand. Western pine is quiet and steady. Yellow pine is unchanged, with flooring and step plank in steady demand, and timber orders scarce.

Walnut has a moderate call. Cherry, quartered oak and whitewood hold their own. Ash is dull and quiet.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in price since last report. We have been looking for a little better demand, but up to the present everything in the line of lumber has been very quiet. Stocks on hand are well assorted. We do not think the absence of trade depends upon prices. Customers all complain that they are selling nothing of consequence and only buy to keep up stock—weather fine.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 22 00@25 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run 1½x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1½-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ¾-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ¾-inch | 30 00@32 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 2 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ℔ M | 0 00@ 2 00 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LIVERPOOL.

The *Timber Trades Journal* of Dec. 27th says:—With the termination of the public sale of mahogany on Friday last, column, the actual business of the year 1884 may be said to have terminated.

Complaints of the slackness of business and the difficulty of obtaining orders are great, even taking due consideration for the time of year, when few dealers or consumers will entertain business except for some special and pressing work. This is the case to so great an extent that the trade have come to a mutual agreement to close their places of business at the Canada Dock, from Wednesday, the 24th, until the end of the current week, a concession which will be hailed with gladness by many of the employes who wish to visit their distant friends.

## LONDON.

The *Timber Trades Journal* of Oct. 27th says:—With the markets here crowded to excess with all descriptions of wood and trade almost at a standstill it is hardly the time for foreign shipping houses to pledge themselves to a curtailment of the usual credit to the buyer on this side. Agree amongst themselves to a curtailmen of the log crop and a diminished production for the forthcoming season, and they will be doing some good to prices, but talking about a limitation of credit to the importers here when as soon as the season commences they will all be rushing to thrust goods upon him is, to say the least, rather absurb. When wood is at a premium and trade flowing in abundance will be time enough to raise the question.

The deliveries from the Surrey Commercial docks are going the wrong way again, and we have to record a drop as compared with last year's at date on deals 402 standards, and 26 standards on flooing boards. As some set-off against this, the deliveries of timber have exceeded those of the corresponding week 12 months since by 741 loads. We are on the whole season's deliveries short of 1883 3,967 standards of deals and 4,676 loads of balk timber. We need hardly remark upon the utter impossibility of balancing this in the short interval now remaining to 1884.

The cargoes arriving in the river between the 19th and 22nd inst. amount to 14, against 23 that came forward the corresponding interval twelve months since. At that time there were five fully laden deal cargoes in the list, but this time the fleet bring a very miscellaneous assortment of wood goods to market, there being only one cargo that could be so described, viz., the Chapman, from Uleaborg, with 9,146 deals and battens, and these do not look a very full cargo either. There are two flooring cargoes from Norway, with an intermixture of joinery and other oddments.

The regular liners from Gothenburg and Christiana with part flooring and case boards, &c., are about the most prominent in the list, which, with an abundance of staves and sleepers from the east country ports, represent the import. The whole of the contributions included will not make any material difference to the market; in fact, timber in odd lots, coming forward in this way, can hardly be felt, as the bulk of it is for private hands, while it is a rather favorable sign to see the arrival list less than that of last year at date.

## GLASGOW.

The *Timber Trades Journal* of Dec. 27th says:—Since last writing there have been no auction sales to report and no additions to stock, with the exception of some parcels of staves per steam liners, and the timber wharves have for several weeks been unusually quiet, arrivals being so light. The parcels of staves arriving from time to time per steam liners from New York, &c., amount to a pretty large total, over 600 mille States staves having been imported this year, which, however, is considerably under last year's total.

Preparations, it is stated, are being made for building several tenements of houses at Clydebank, a shipbuilding and machine-making district near Glasgow; and at the Dean of Guild's Court here, on the 17th inst., linings were granted for some fresh erections, among which one by a leather merchant and tanner appeared to rather surprise the Dean in these quiet times when he was told that when completed it would be the largest tannery in the world. The Dean said that he was glad some industry was prospering in the city.

The total importation of mahogany and cedar in all descriptions this year to Glasgow has been eight cargoes, comprising 5,032 logs and ends, measuring 1,268,633 sale feet, about 60,000 feet less than the import of last year (1883).

These eight cargoes received have consisted chiefly of wood of small sizes, but had shippers been able to provide large and medium dimensions this market could have easily taken up more cargoes than have been imported, and at satisfactory rates, we believe, as the demand for large and medium sizes has been all through the year very good. There is no mahogany here at present in first hands, and for about three months there has been no import.

## TYNE.

The *Timber Trades Journal* of Dec. 27th says:—The arrivals of the last week may be said to be covered with one entry, that of the usual steamer from Christiania, the others being merely oddments. The weather has been cold and stormy, rendering outdoor work almost impossible; so that little is doing, and the holidays now commencing practically close business altogether for the season. The new year's week being held of even greater importance than Christmas in these northern parts, all manufacturers take the opportunity of repairs to machinery, &c. At present any excuse for closing for a few days is very gladly hailed.

## AUSTRALIA.

Messrs. Lord & Hughes' monthly circular, dated Melbourne, Nov. 19th, says:—

The amount of business done in timber and building materials since the date of our last report on the 22nd ult., has been below the usual monthly average, in consequence of the holidays.

Offerings at auction have been principally Baltic deals and flooring, Oregon timber, Kauri pine, cedar, and redwood. Prices for red deals are slightly easier, owing to large arrivals. Flooring maintains last month's rates. Oregon timber shows an advance of about seven and a-half per cent. on previous sales. Kauri pine, cedar and redwood are lower.

The Otus, from Drammen, is not included in our imports of flooring, as she has been ordered on to Sydney.

Delivery from yards for consumption have been on a very liberal scale and likely to continue, as building operations are active in the city and suburbs.

RED DEALS.—Imports: 1,769 standard from the Baltic, and 1,561 pieces from Great Britain. The arrivals have been—Jotun, from Sundswall; Telefon, Nebo, and Mississippi, from Soderham; William Le Lacheur, and Hilma, from Gefle. Sales by auction have been small quantities ex Telefon and Glencairn, and small line ex Lindsay. MB, 11x4, realizing 5d. per foot 9x3, 11x3, 5½d., 9x3, 5 1-16d. SBS, 8x3, and 7x3, 4 7-16d. SAB, 11x3, 4½d., 9x3, 4d. The cargo ex William Le Lacheur is advertised for sale on 21st inst., and that ex Hilma on 25th.

SPRUCE DEALS.—Imports: Nil. Auction sales: Nil.

OREGON TIMBER.—Imports: Nil. The only public sale since our last has been cargo ex Republic, which was sold yesterday at a decided advance on previous rates, prices ranging from £7 12s. 6d. to £7 5s.; average, about £7 10s.

LUMBER.—Imports: Nil. The shipment, ex Oneida, was sold on 31st ult. at an advance on last month's quotations. The only other public transactions have been of small balances ex Adelaide, and as there is now no lumber in first hands, a further advance is anticipated for first shipments arriving.

REDWOOD.—Imports: Nil. The balance of consignment ex Kylemore was all cleared off at auction on 31st October at £9 to £8 10s., besides which there have been other public sales.

FLOORING AND WEATHERBOARDS.—Imports: 1,659,058 feet lineal. The arrivals have been Star of the East, from Frederickstadt; Darling

Downs, Rodney, and Aviemore, from Great Britain. Sales by auction have been—cargo ex Lindsay, balance ex City of Agra, and various lines ex G. P. Harbitz, Hertha, Helene, Atlantic. Kamfjord, Stallknecht, and Avanti, at following prices, viz.:—Red 6x1½, 10s. 9d.; 6x⅞, 8s. 3d.; 6x¾, 6s. 3d. and 6s.; 6x½, 5s. to 4s. 9d.; 4-out weatherboards, 6s. 3d.; White, 6x1½, 9s. to 8s. 6d.; 6x⅞, 8s. 3d. to 8s.; 6x¾, 5s. 7d. and 5s. 6d.; 6x½, 5s. 9d. to 5s.; 4-out weatherboards, 6s. 3d. to 6s., the above prices showing a marked improvement on every line as compared with our last advices. The cargo ex Magne is advertised for sale on 25th inst.

KAURI PINE.—Imports: 1,032,253 feet super. The arrivals have been Cabarfeidh, Albert the Good, Jules Marie, Waitemata, and Darcy Pratt. Auction sales have been ex Grassmere, Cabarfeidh, Jules Marie, Albert the Good, and Waitemata. So many arrivals coming together has had a depressing effect on prices, consequently sales have been made below last month's quotations.

CEDAR.—Imports: 153,300 feet super. The arrivals have been ex various coasting steamers Sales have not been so heavy as last month, but prices are lower.

DOORS.—Imports: Nil.

LATHS AND PICKETS.—Imports: Laths, 3,201 bundles; pickets, 1,392 bundles.

SLATES.—Imports: 797,200 pieces. The arrivals have been—Garfield, Sudbourn, Micronesia, and Oakworth, from Liverpool; Abiel Abbott, from New York. We have no sales by aution to report.

PLASTER.—Imports: 163 barrels. There have been no auction sales since our last.

CEMENT.—Imports: 4,980 barrels. There is no improvement to report, and prices remain about the same as last advised, viz., for best brands, 13s. to 12s. 6d.

GALVANIZED IRON.—Imports: 1,145 tons. Remains unchanged; no private sales of importance having transpired, neither have there been any at auction.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3; T. and G. flooring at per 100 feet running; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 feet super; Kauri pine and cedar logs at per 100 feet super; laths, pickets, and slates at per 1,000 pieces.

## THE CHICAGO YARD PINE TRADE OF 1884.

The wholesale lumber trade of this city entered the year 1884 with a stock of 635,348,561 feet of lumber as compared to 655,013,520 at a corresponding date last year. The comparison between shingle stocks at the beginning of the two years was—1884, 461,930,496—1883, 299,946,350. Thus it can be seen that there was about 20,000,000 feet less of lumber on hand January 1st, 1884, than there was at a like date the year before, while there was a vast increase of shingles last year as compared to 1883.

The past year had been one of marked decline in prices on common lumber, and the trade entered the new year with some doubt and misgiving. Since the spring of 1882 a shrinkage in the value of lumber had been threatened by a manifest inclination to overproduction. The boom of 1880-81 had spent its force, and all the great industries of the country had faced the probability, that at length grew into a certainty, that values of all kinds of coarse products must decline to minimum standards. During 1883 values took a decided run down hill. When 1883 closed on the Chicago lumber trade, the merchants and manufacturers looked back upon a twelvemonth of unsatisfactory experience, and forth on a year of uncertainty.

It is worthy of note that between the price lists of the trade for December, 1883, and December, 1884, there was considerable difference. On upper grades and selects published prices in December just past were about $1 below what they were the year before; on inch finishing lumber they were nearly the same in each December; 12-inch stock boards were the same, as were box boards; on dressed and matched flooring there was a decline from December, 1883, to December, 1884, of $1, and on rough flooring of $1 to $3; on tied siding 50 cents to $1.50, on beaded ceiling about the same; on 12-inch common boards from $1.50 to $3; on common and cull boards, from $2 to $3; on common and cull fencing, $1.50, and on dimension from $1 to $1.50. Shingles were listed for December, 1884, at 25 to 50 cents lower than they were for December, 1883.

In making the above comparisons it is proper to observe that the December list for 1883 was not as honest a one as that for December just passed; that is to say that the list one year ago more widely diverged from prices made in actual sales than the list for December just past. It will thus be seen that the actual difference between prices in the two Decembers was not as great as appears by the comparison of price lists; yet there was a difference that represented a decline during the year, and it would probably average from $1 to $1.50 a thousand, and possibly more on thick uppers.

## A QUESTION ABOUT DOORS.

Of what shall our doors be made? The rooms are finished with the more common hard woods as ash, cherry, butternut and pine. The regulation thing is to veneer them with the varieties of wood conforming with the finish of the rooms, but such doors are expensive, even if simple in design and give an impression of stiffness and formality that is not always agreeable. Is it necessary to insist on this literal conformity?

Well, that depends upon what necessity rests upon. If we allow a mahogany chair to stand in the same room with one made of black walnut, or a Wakefield rattan to lean against a comrade clad in crimson plush; if a cherry chimney piece may be near neighbor to a rosewood piano and an ebony cabinet stand beside a marble topped table, it is certainly no sin to hang a pine door to an ash casing. The prejudice in favor of making the doors "match" the visible wood finish of the rooms in which they show when they happen to be closed, seems to have too slender a foundation to be called a necessity. Such doors are no better, and it would not be easy to explain why they should be esteemed better in appearance.

One of the best doors that can be made has a solid pine frame-work with panels of some hard wood, the latter readily matching the standing finish if desired, and the pine being comparatively free from the tendency to warp or submit to the weather, which characterizes most of the harder woods and makes it unsafe to use them solid even when it is permitted the door to have both sides alike. Since the advent of portieres the doors are of less importance than formerly, and in the case of sliding doors that are only closed on sweeping occasions, or when the house has gone to sleep, it is a waste of resources to make them anything but severely plain and plainly useful. The chief duty of a sliding door is to slide, and whatever interferes with this separation, as much elaborate work is apt to do, is a mistake and a blemish.—*The Builder.*

A DESPATCH from Buffalo on Jan. 12th says that Sheriff Ketch has seized 514,719 feet of pine lumber on an attachment issued by Judge Corlett, in the case of the Canadian Bank of Commerce v. Hugh Wilson, jr., and others.

**There Shall be no Alps.**

When Napoleon thought of invading Italy one of his officers said: "But, sir, remember the Alps." To an ordinary man these would have seemed simply unsurmountable, but Napoleon responded eagerly: "There shall be no Alps. So the famous Simplon pass was made. Disease like a mountain, stands in the way of fame, fortune and honor to many who by Dr. Pierce's Golden Medical Discovery might be healed and so the mountain would disappear. It is specific for all blood diseases, such as consumption (which is only scrofula of the lungs), pimples, blotches, eruptions, rumors, swellings, fever-sores and kindred complaints.

THE

Cooks' Favorite!

BAKING POWDER.

DOMINION SILVER MEDAL

At Ottawa Exhibition, 1884. It is the most economic and the best in use. Perfectly Pure. L20-1y

MONTREAL SAW WORKS

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OFFICE: 452 St. Paul Street. P. O. Box, 1167.

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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

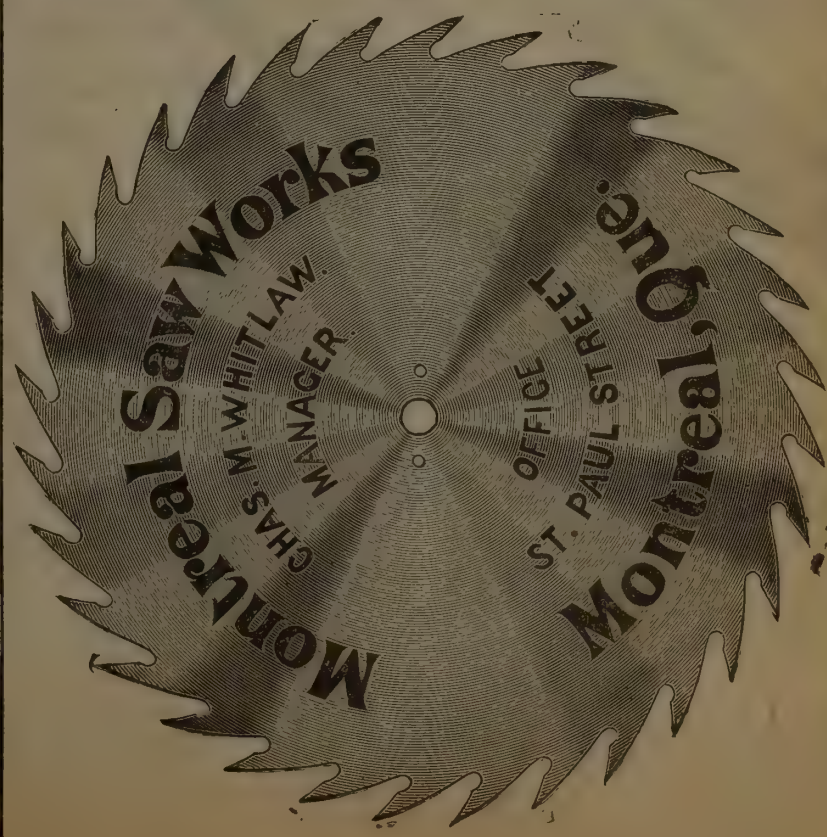
TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.

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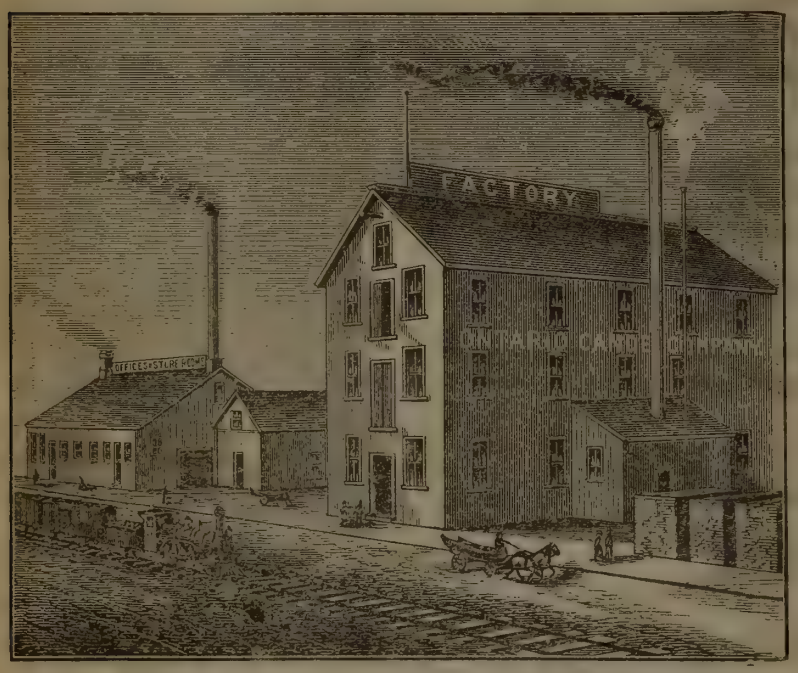
PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

# CANOES

*Patnet Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.*




*Gold Medal, London Fisheries Exhibition, 1883.*

J. Z. ROGERS,
President and Managing Director

Send cent Stamp for Illustrated Catalogue.

**Canoes for Lumbermen,** designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

A GOLD MEDAL awarded at the Ottawa Exhibition, 1884, for Fine Display

—OF—

LEATHER Belting.

SILVER MEDAL at Montreal, 1884

SILVER MEDAL at St. John, N.B., 1883.

Silver Medal, Montreal, 1882.

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# MONTREAL, QUE.

# H. WILLIAMS,

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# TENT & AWNING CO.

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MANUFACTURERS OF

# LUMBERMEN'S TENTS

*The Cheapest and Best in the Market!*

32 First Prizes AND 6 MEDALS.

AT HALIFAX AND TORONTO, *1883.*

Tents, Flags, Tarpaulins, Waterproof Goods, Camp Furniture, etc., etc.

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## PORTABLE ANVAS BOATS MADE TO ORDER

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SEE OUR NOVELTIES IN Camp Furniture!

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**We control "THE LATOUR PAT." for Camp Furniture, the best on earth. The only Gold Medal ever given for this class of goods was awarded to the Latour Camp Furniture at Toronto in 1882.**

## SAIL-MAKING.

**We have secured the services of the best practical sail-maker in Canada. Orders in this line will receive prompt and satisfactory attention, as is usual with all orders entrusted to us.**

**Agency for the WILDERMUTH BED SPRING, the best in the Market.**

A. G. FORGIE, MANAGER,

# International Tent & Awning Co.,

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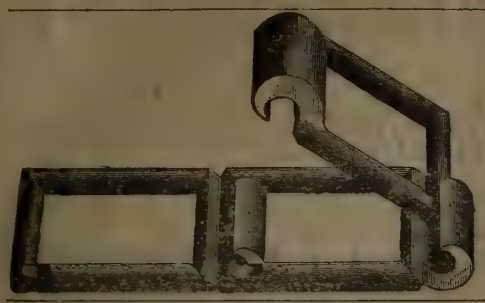
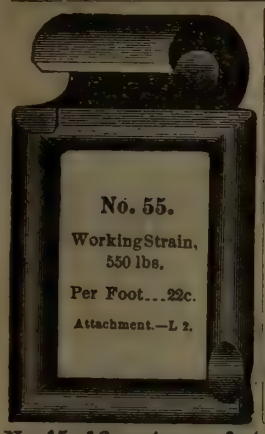
2416

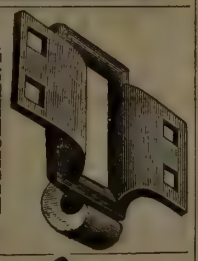
# EWART'S PATENT LINK BELTING

For CONVEYING, ELEVATING, and TRANSFERRING every Product of a Saw Mill, into, through and out of the mill.





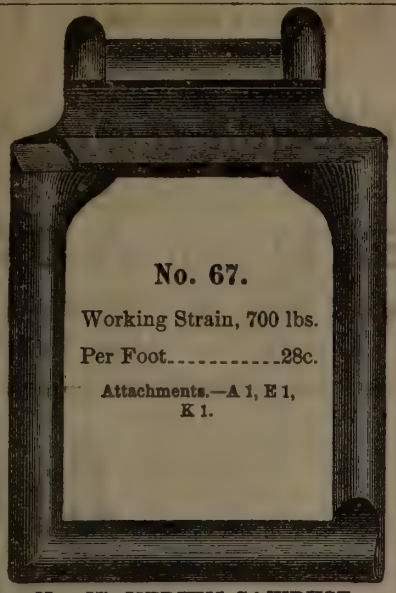
No. 55.
Working Strain, 550 lbs.
Per Foot...22c.
Attachment.—L 2.



K² SLAT CONVEYOR ATTACHMENT.

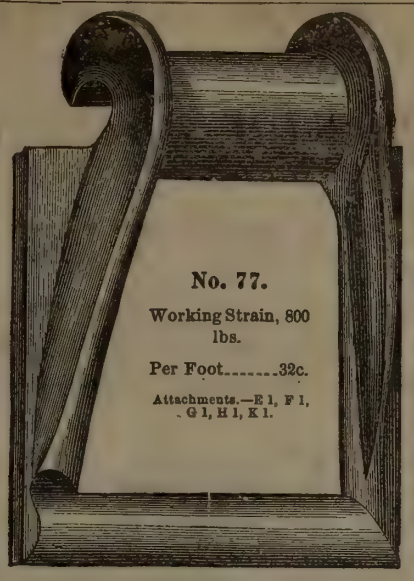
F² SLAT CONVEYOR ATTACHMENT.

No. 45—16 cents per foot and 55 used for light Sawdust Conveyors.



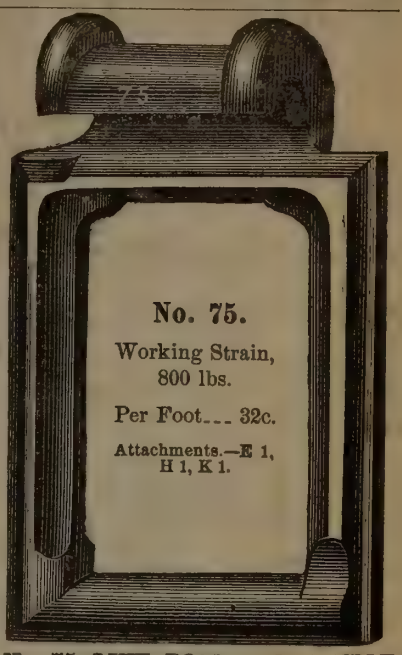
No. 67.
Working Strain, 700 lbs.
Per Foot.....28c.
Attachments.—A 1, E 1, K 1.

No. 67—MEDIUM SAWDUST CONVEYOR CHAIN.



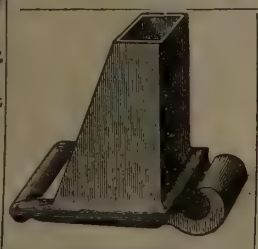
No. 77.
Working Strain, 800 lbs.
Per Foot.....32c.
Attachments.—E 1, F 1, G 1, H 1, K 1.

No. 77—CONVEYOR AND LIVE ROLL CHAIN.

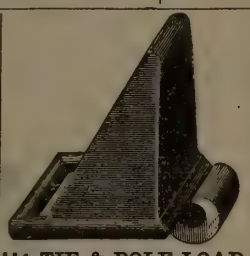


No. 75.
Working Strain, 800 lbs.
Per Foot... 32c.
Attachments.—E 1, H 1, K 1.

No. 75—LIVE ROLL AND DOUBLE STRAND ELEVATORS.



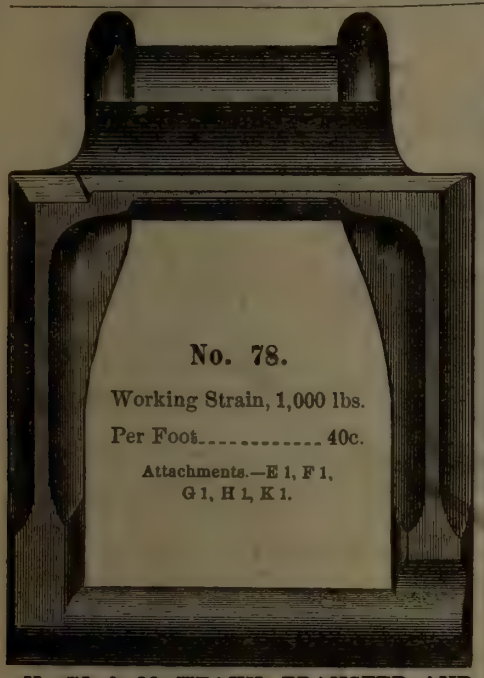
H¹ TRANSFER ATTACHMENT.



H⁴ TIE & POLE LOADING ATTACHMENT.

# GIANT CHAIN for Log Haulups

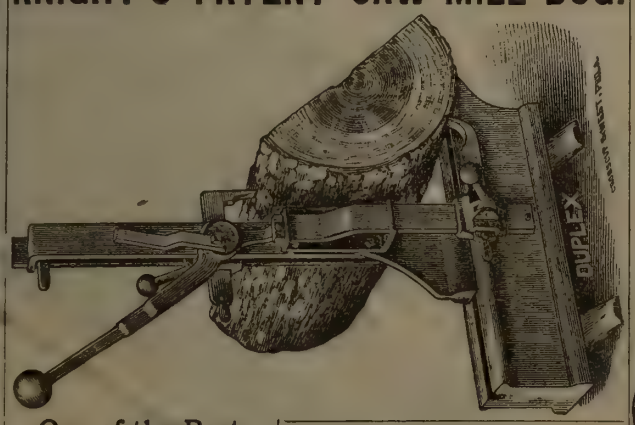
*And Main Refuse Conveyors for Large Mills.*



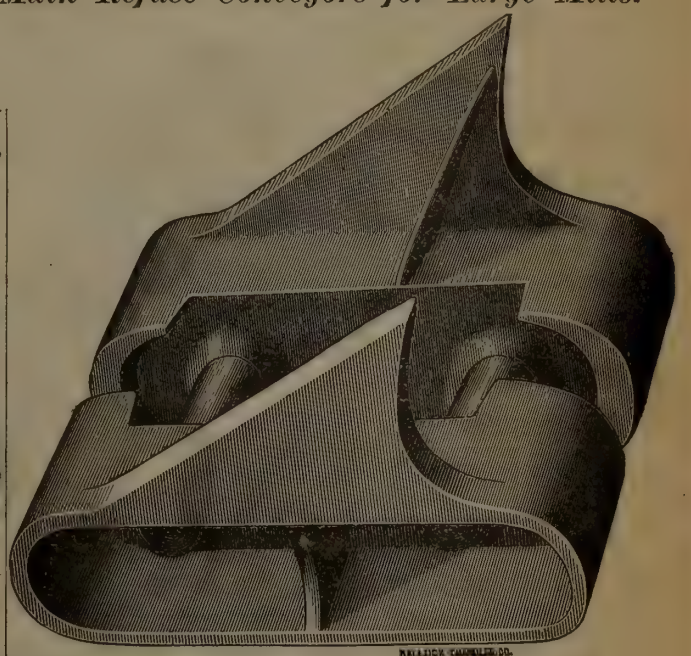
No. 78.
Working Strain, 1,000 lbs.
Per Foot.....40c.
Attachments.—E 1, F 1, G 1, H 1, K 1.

No. 78 & 88—HEAVY TRANSFER AND LIVE ROLL CHAIN.

## KNIGHT'S PATENT SAW MILL DOG.




One of the Best Log and Board Dogs made.

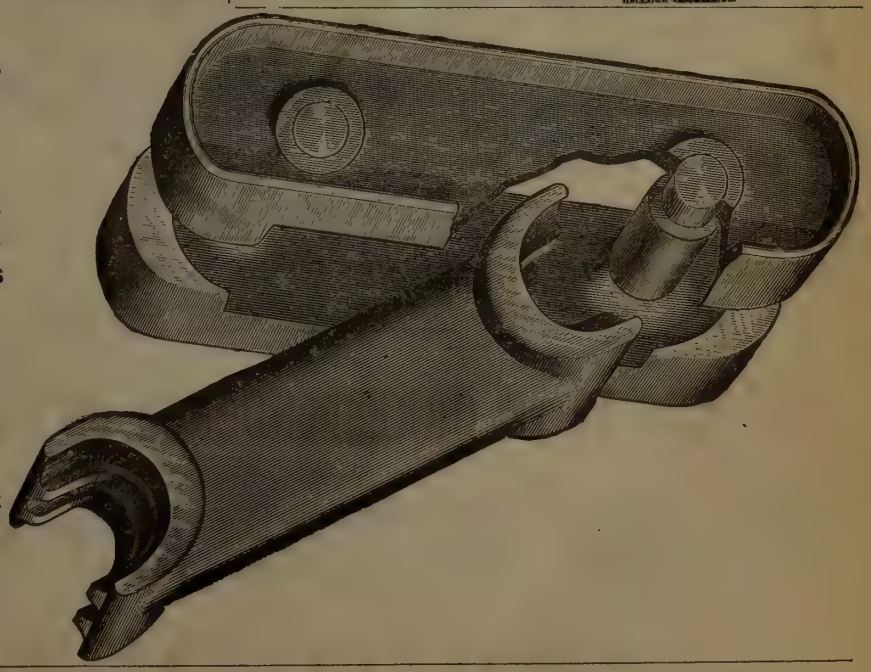


## LOG TOOTH.

No strain or wear on Rivets.

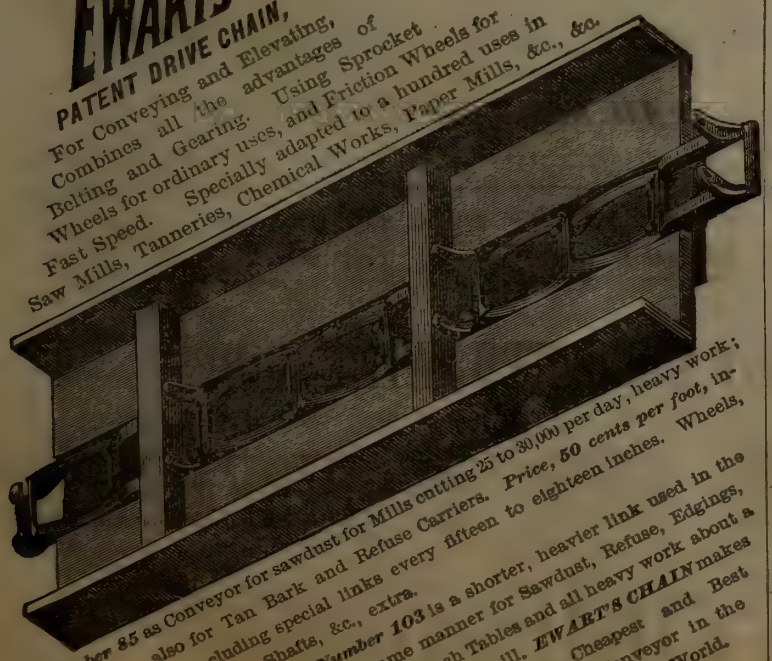
Easily Repaired if broken all links being Interchangeable.

Special Prices for Giant Chain during next 60 Days.



## EWARTS PATENT DRIVE CHAIN,

For Conveying and Elevating, Combines all the advantages of Belting and Gearing. Using Sprocket Wheels for ordinary uses, and Friction Wheels for Fast Speed. Specially adapted to a hundred uses in Saw Mills, Tanneries, Chemical Works, Paper Mills, &c., &c.



*Number 45* as Conveyor for sawdust for Mills cutting 25 to 30,000 per day, heavy work; also for Tan Bark and Refuse Carriers. *Price, 50 cents per foot*, including special links every fifteen to eighteen inches. Wheels, Shafts, &c., extra.

*Number 103* is a shorter, heavier link used in the same manner for Sawdust, Refuse, Edgings, Slash Tables and all heavy work about a sawmill. *EWART'S CHAIN* makes the Cheapest and Best Conveyor in the World.

*Send for Illustrated Circular, address*

THE WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA,
Sole Manufacturers and Proprietors of Canadian Patent.

# Waterous Engine Works Co'y,

*BRANTFORD, CANADA.* Send for Catalogue.

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*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

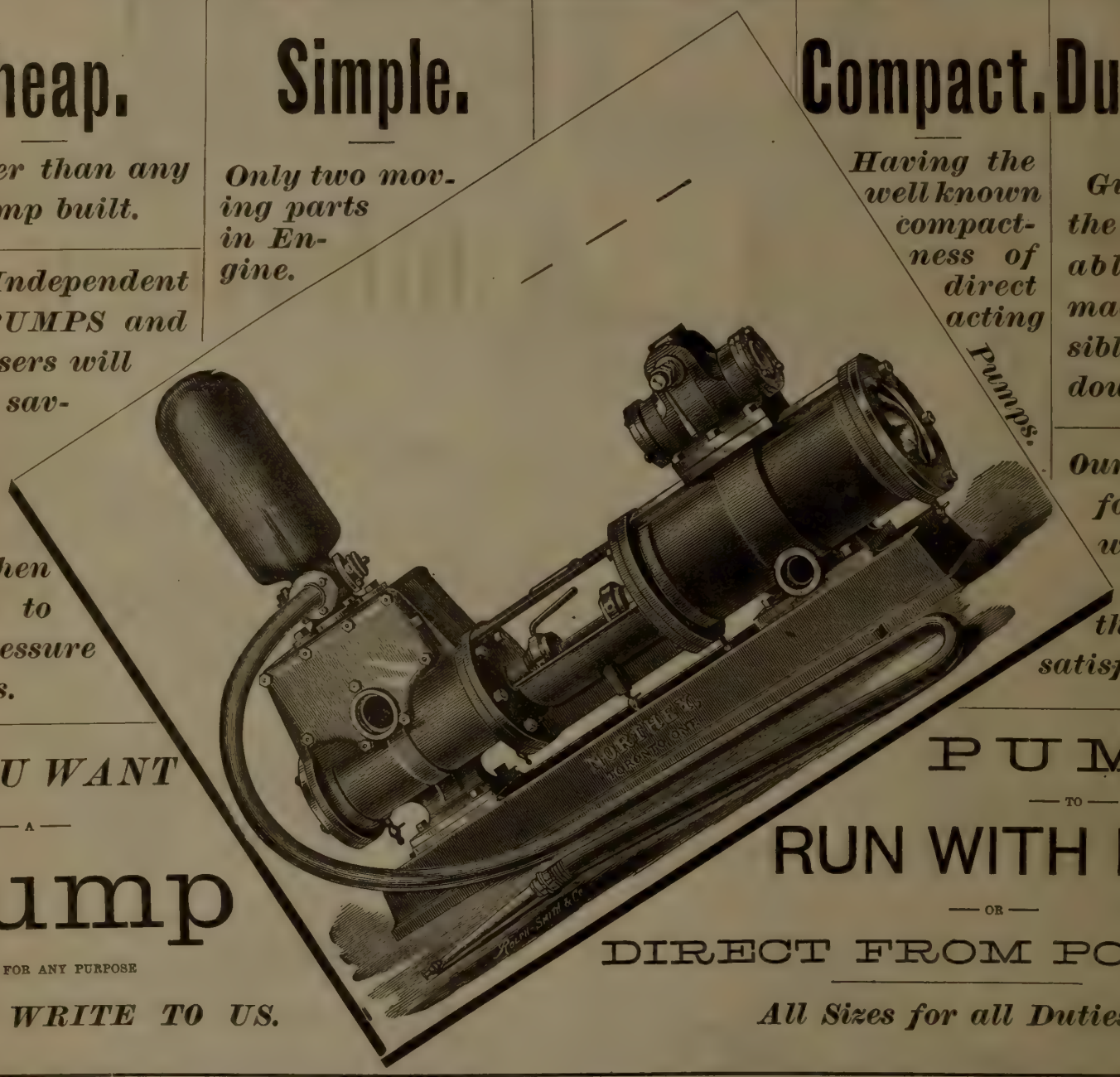
**Cheap.**

*Cheaper than any Pump built.*

*Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.*

**Simple.**

*Only two moving parts in Engine.*




**Compact.**

*Having the well known compactness of direct acting Pumps.*

**Durable.**

*Guaranteed the most durable Pump made; impossible to break down.*

*Our PUMPS for general water supply give the greatest satisfaction.*

*IF YOU WANT*

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☞ *WRITE TO US.*

**PUMPS**

— TO —

**RUN WITH BELT**

— OR —

**DIRECT FROM POWER**

*All Sizes for all Duties.*

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

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## SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

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FOR THE

# Canada Lumberman

IT WILL PAY YOU, BECAUSE :

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2. It is devoted to the development and utilization of our forest wealth.
3. It furnishes complete and reliable quotations of prices of lumber in all the leading markets.
4. Its columns are filled with interesting reading matter, valuable alike to the land owner, manufacturer or dealer.
5. It costs only $2.00 per year to have it sent, post-paid, to any address in Canada, and no land owner, lumber dealer, manufacturer or individual in any way connected with timber industries, can afford to do without it.

## ☞TO ADVERTISERS.

It has a circulation among saw mill owners, manufacturers, lumber and timber dealers and all classes connected with the timber business.

Examine the field, count the cost, and you will at once decide that the CANADA LUMBERMAN is the

*———CHEAPEST, BEST, MOST RELIABLE and ONLY TRUE MEDIUM———*

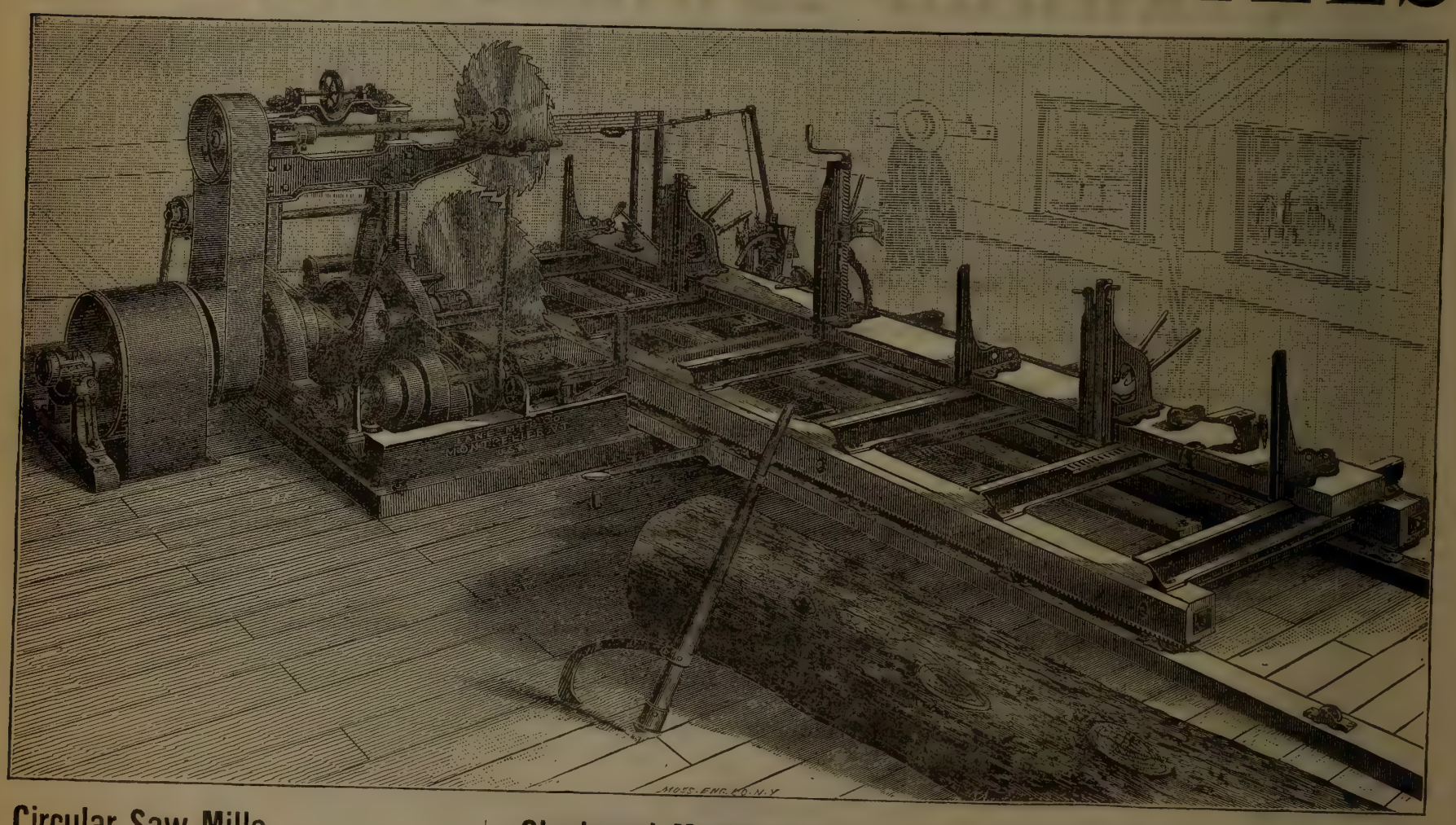
for placing your goods or wares before the saw-mill men and lumber and timber dealers of the Dominion.

# THE LANE MANUFACTURING COMPANY!

## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS



Circular Saw Mills,
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Double and Single Traveling Bed Planers, Shingle Bolters,
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# The William Hamilton Manufacturing Co'y

(LIMITED,)

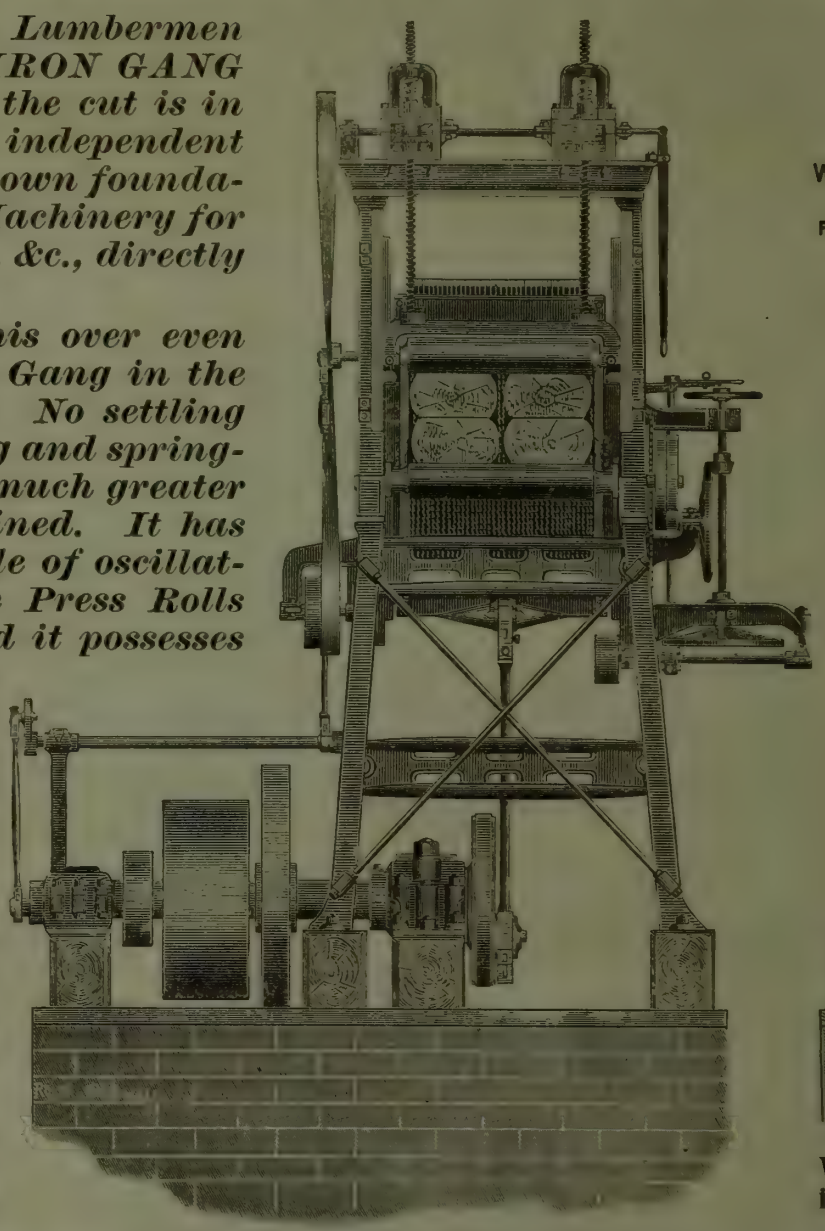
MANUFACTURERS OF

# Saw Mills and General Machinery

PETERBOROUGH, - ONTARIO.

***We introduce to the Lumbermen of Canada, our New IRON GANG which will be seen by the cut is in itself a complete and independent Machine, resting on its own foundations, having all the Machinery for operating, feeding, &c., &c., directly attached.***

***The advantage of this over even a well built ordinary Gang in the mill frame is evident. No settling out of line, no yielding and springing of timber, while a much greater working speed is obtained. It has the most improved style of oscillating motion, it has the Press Rolls operated by power, and it possesses generally all the good features of best American Gangs, with heavier frame work, and heavier shafting, all with a view to rapid, steady & correct working. A good look at one of these massive machines satisfies the sawmill man that they are in every way capable of continuously performing heavy duty throughout the season.***



**We make these GANGS one of our Specialties, and manufacture different sizes.**

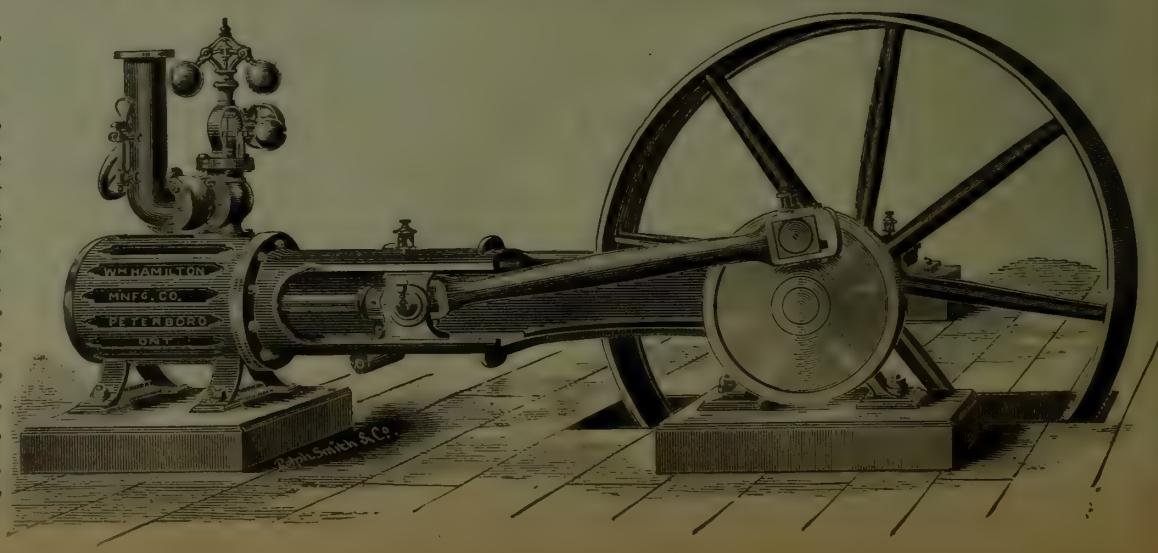
*The Wm. Hamilton Manufacturing Company. Limited, Peterborough,*

SERPENT RIVER, September 28, 1884.

GENTS,—We are doing big work with the Mill. We recently cut 122 thousand feet of inch Lumber in one day, with the Gang and Large Circular, without any crowding whatever. We are making a steady average of from 90 to 100 thousandfeet per day. I cannot say what amount the Gang is really capable of cutting, as we have not yet been able to stock it to run it at its full capacity. I can, conscientiously recommend the Gang as the best built in Canada. I remain, yours truly, (Signed) WM. THOMPSON, Mill Manager for COOK BROS.

## Also, ENGINES and BOILERS.

***This cut represents our SAW MILL ENGINE, of which we make the following our Standard sizes, 12x16, 16x20, 18x24, 20x24, and 24x30, built Strong and Substantial for Heavy Work. The Piston Rod, Cross-head Pin, and Wrist Pin, are made heavy and of the best steel; the Connecting Rod has solid ends and is tightened up by screw and wedge, avoiding all danger of keys getting out; the Slide Valve has a simple balance valve, requiring no attention from the Engineer, as it is self-adjusting. The Engine Shaft and Fly Wheel made very heavy. Belt Pulleys put on when required in place of Fly Wheel, and all regulated by the Judson Governor.***



# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., FEBRUARY 1, 1885. NO. 3.


## WOOD AND WOOD-WORKING INDUSTRIES OF NEW BRUNSWICK.

The following article on the "Woods and Wood-Working Industries of New Brunswick," by Ira Cornwall, jr., Agent-General for the Province of New Brunswick, is taken from a book "St. John and the Province of New Brunswick," by Mr. John R. Hamilton :—

In treating of this subject it is not our intention to enter into an exhaustive treaties, or attempt any scientific details. We will deal with the matter simply from a commercial point of view, and avail ourselves of the opinions of the best authorities we can command.

Our readers will readily observe that the general advantages of the cities of St. John and Portland, as to location, harbor, climate, &c., will apply with equal force to this as to any other branch of manufacture.

Cheap fuel, cheap living, ready and accessible markets being admitted, we must give some evidence of a sufficient supply of the raw material being available.

Large portions of our Provinces are covered with forests of the most valuable woods, which we enumerate fully in the following pages. Our supplies of the most important of these woods are practically exhaustless.

The forests being intersected in almost all directions by rivers and streams, makes the transportation of the timber a question of but small expense. Once the log is cast upon the stream the process of floating it, by steam-driving or rafting, to this point is easily and cheaply accomplished. Nearly all important sections of the Province are intersected by railways, thus affording great facilities for transportation.

The large number of saw mills now located here prove their successful competition with those located at other points. The reputation of our timber and lumber is sufficiently well established in all markets, and our trade large and growing in what are now our staple products, and it is not our intention to urge extension in those lines. Our object is to divert a portion of capital, labor and material into a branch of trade which will not only utilize a greater variety of the our raw materials, but also extend the amount of labor put upon all our wood exports.

The simple vastness of our supplies of timber have led to such anxiety to get it into the market that, up to the present time, our efforts have been directed to the most expeditious way of placing it in the foreign markets. This, assisted no doubt by the scarcity of laborers, has led to our putting just sufficient labor upon it as would prepare it for export. Up to the present time our exports have consisted mainly of square timber and deals.

The large development of other manufacturing industries throughout the Dominion has aroused our people to an appreciation of their mistake in thus sending comparatively raw material to be worked up in other countries. It is now realized more clearly that the labor expended upon our woods at home benefits not only the individual manufacturer, but enriches the whole country.

As an illustration of our meaning let us take a maple tree. For export as square timber it is taken from the forest, cut into proper lengths and squared. Not only is the amount of labor expended upon it comparatively small, but much of the most valuable portions of the material is wasted in the process. After reaching its destination another large portion, equal to about one-seventh, is sacrificed in its preparation for use. The same tree, if placed in the hands of our wood-workers, would be turned into portions of furniture, mouldings, bases, skirtings, architraves, flooring, bench screws, boot and shoe trees, lasts and crimps, tool handles, wringers, towel rollers, bobbins, spools, ship blocks, rolling pins, potato mashers, shoe pegs, &c. Besides utilizing every particle of the raw material, consider the vast amount of labor the latter employs, and the much larger amount of money the manufactured articles will bring into the country. It is necessary to ask which use of the tree is best for the largest number of people, and therefore for the country.

Take a spruce tree as another illustration. The amount of labor expended upon that tree in manufacturing into deals for export is relatively light, and the loss of material large as compared with its use by small ware manufacturers. In the hands of the latter not a single portion need be wasted in producing various valuable portions of furniture, building material, handles for brooms, mops, hoes, &c., washboards, venetian blinds ; packing—fish, salt, and others boxes, onion and fruit crates, &c. In this case, as in the former, further comparison is unnecessary, and the advantage of having the labor put upon the wood at home will be apparent to every reader, even admitting all other circumstances to be equally favorable for our competitors in other countries.

Our interest in having the work done at home being thus demonstrated, we will now touch upon some of the reasons why it is for the interest of our customers, as well, to allow us this privilege.

In dealing with this portion of the subject we have availed ourselves of the experience of some of our practical wood-workers. Mr. John D. Howe, of the firm of J. & J. D. Howe, furniture manufacturers of this city, who has taken an active interest in the development of our Province, and made considerable study of our woods and their uses, gives us his opinion and experience as follows: He says, "Authorities differ as to whether our supply of what is generally looked upon as marketable timber is diminishing. Be this as it may, we still have enormous supplies of those woods. Independent of these it is a well known fact that immense tracts of our lands are covered with most valuable woods generally considered of little value, but which will eventually yield a more profitable article of export than either pine or spruce, as the latter are now handled. The poplar, white birch, basswood, maple, and other deciduous varieties of our forests, if cut and shipped in the ordinary manner of shipping spruce and pine, would in most cases prove a failure. A demand for it in that shape could never be worked up. In order to make their export a success their nature and their peculiarities must be well understood, and a desirable amount of intelligence and skill brought to bear in their manufacture. We might as well attempt to send away our grass or grain as we take them off the fields, without curing, as to export these woods without seasoning and manufacturing into desirable sizes or articles for which they are most suited. Our poplar, which is very abundant, is valuable for many purposes ; it is very white in colour, and of light weight. It becomes hard and tough when dry, and is susceptible of a high degree of polish. It is now used chiefly for making "Excelsior," an article used for matress making, upholstering, and for packing purposes, etc., for which there is a large and increasing demand. On account of the hardness of this wood it is considered superior to pine or spruce, where narrow stock is required, for flooring and other interior finish. It can also be largely used for cabinet work, tool handles, paper pulp, and many other purposes.

Basswood, like the poplar, is even more liable to spoil after the tree is cut down. Like all other vegetable substances there is not any remedy for it after decay sets in. The early stages of decay, or souring of the sap, as it is called, should be carefully guarded against ; it alike destroys the color of the wood and the firmness of its grain. It destroys the qualities which render it so valuable for many purposes, such as carriage bodies, furniture, interior finish, &c. It takes walnut or mahogany stain equal if not superior to any other wood, and makes a pleasing finish in its natural color—pale yellow.

The white birch, although not so liable as the basswood, poplar, and maple to deteriorate while green, or before the sap or moisture leaves it, requires careful treatment in order to preserve its strength and colour. The many purposes to which this valuable wood may be applied are too numerous to mention. Large quantities are now being snipped to Europe in the shape of spool bobbins, blocks, &c. It is becoming exceedingly popular for first-class flooring, and for this purpose should be cut on the rift rather than on the slash of the grain. Maple and beech are also excellent for flooring, but their chief value is for tool stocks and handles, agricultural implements, lasts and an almost endless variety of articles requiring a strength and hardness that will resist wear. The preference given to English plane stock and tool handles is not due (as the prevailing opinion puts it) to the material used by those makers being superior to ours. It is rather attributable to their proper method of treatment of it. The trees are cut down in the proper season, while the sap is down ; they are then blocked out to suitable sizes, and then dried—not allowing the sun to check or dampness to heat or mould it. On no account is the log allowed to remain uncut for any length of time either in or out of the water. There is not any class of woodwork where the proper cutting and curing of wood is of so great importance as in its preparation for wood engraving.

Our rock maple, if prepared according to the foregoing observations, becomes dense and capable of receiving almost as large a number of lines to the inch as boxwood. In other words, it is suitable for fine work. If the same wood was allowed to remain in bulk for any length of time, even in the log or plank, or worse still, a close pile, it would become worthless for wood engraving."

Mr. Howe continues : "It is to be regretted that the beauty and nature of our native woods have not been better understood and properly appreciated. This is probably due to their abundance, but it is not any reason why we should not make the most of what we have so plentiful. It is hoped that when it becomes apparent that we still possess a valuable supply of timber that it will not receive the same ruthless and greedy treatment that the pine, spruce and hemlock have received in the past."

In again referring to the proper preservation and seasoning of timber, while Mr. Howe's remarks apply to some lumber or material not exceeding three or four inches in thickness, the same cannot be applied to cases where it is used for shipbuilding. For these purposes another eminent authority says : "The decay of wood by the growth of fungus, denominated dry rot, may be traced to the putrifying of the sap (as alluded to by Mr. Howe) when this has been left within the pores of the timber in the same condition as it exists in the living tree. The various means employed to arrest this destructive fermentation are, either to wash out the sap by long soaking in water, aided by the action of the sun ; to dry up the sap, either naturally by exposure to the sun and wind, or artificially by heated currents of air" Nearly all authorities agree that there is great advantage in having our woods properly seasoned in this climate. A firm of dealers in wooden ware, writing from Liverpool recently commented most strongly upon the subject, and stated : "The advantage of having the woods seasoned seasoned in New Brunswick climate gives her

manufacturers an undoubted advantage over competitors."

With the foregoing facts before us, it cannot but be admitted that the consumers are much better served by having the work put upon the woods in this country. They obtain better material unquestionably; the saving in raw material should insure lower prices for them, and the saving in freight is a considerable item.

Referring to Mr. Howe's remarks upon our woods for the use of wood engraving, one of the leading engravers of the Dominion says, "I use our native woods almost entirely and find them quite equal to any foreign woods for general purposes." He agrees with Mr. Howe that the success or failure depends entirely upon the preparation. Only experienced persons can cure it properly.

Under treatment suggested by Mr. Howe, some of our woods are admirably adapted for manufacturing musical instruments. Messrs. J. & G. Gibbs of this city, manufacturers of violins, who have had considerable experience both in the old country as well as here, remark: "If the musical makers of London could procure such stock as is plentiful and easily obtained here, they would consider it beyond value."

This especially as regards our rock and bird's-eye maple. These woods, if carefully selected by experienced men and subjected to proper treatment, would command the highest price in any market. In this, as in wood engraving, want of knowledge of the woods and their treatment would be fatal. A European firm seeking woods for veneering purposes, remarked that the bird's-eye maple of this country would be invaluable to them.

The New Brunswick hemlock timber is now becoming popular for packing cases and other purposes when great durability is required. It holds the nails better than the other woods now used for those purposes, and is exceedingly plentiful and cheap. It is largely used for granaries, as it effectually resists the knawing of rats, also for underflooring outhouses, etc. It is also considered the most durable for use under water; logs of this timber used for piles, wharves, etc., are almost indestructible. A firm of prominent wooden ware dealers in London, England, writes: "We are unable to obtain sufficiently good timber from Sweden, from knots and of sufficient width, to fill our orders for boxes. We must, therefore, look for a new field, and find the New Brunswick woods have the best reputation and will answer our purpose." Another firm of wooden ware dealers in Liverpool writes: "New Brunswick is unquestionably the spot for wooden wares." The *Timber Trades Journal*, in referring to the samples of our hard woods at the Forestry Exhibition at Edinburgh (and it is these woods we are seeking a market for), says: "We saw some very handsome specimens of these woods in which there ought to be a very large trade done in this country."

Other papers and leading authorities on timber express similar opinions, and give great prominence to the growth of hardwood in this Province.

A leading architect of Liverpool, England, writes regarding the prospects for sale of New Brunswick woods in England:—

"I am of opinion that if good material, thoroughly seasoned and properly worked up to modern requirements, is sent to this country, suitable for houses, offices, stores, etc., a large trade might be done. In the past, all foreign manufactured builders' work has got a very bad name trough inferior and badly seasoned woods being used, which in many cases have, as soon as the buildings are occupied, shrunk and split in such a manner as to stop architects and builders allowing or using such, and moreover, the design used has been exceedingly poor.

"What is required is doors of the ordinary thickness used, pannelled and moulded according to English ideas, with the moulds, etc., to Architect's designs. Skirting, door casings, single moulds, architraves, etc., are all made somewhere about standard sizes, and if good designs are obtained and these varied as the style of architecture changed, architects and builders would speedily use these productions; but to get this some one must direct matters who thoroughly understands buildings, architects and builders, and their requirements. It is useless sending over work not suited to the market. or of an inferior kind, and often such a small matter makes all the difference in the suitability of work; for instance, the character of a door panel mould of classic design, would not be suitable for a Gothic building.

"The thing is to have moulds for each style of architecture, and for special cases, to get the architect to furnish his designs in time for the same to be sent over to be carried out at the manufactory, for it is in rare instances that doors, etc., are wanted within three months after the contract is signed, and in many cases of large works it is twelve months and even longer.

"There must be a great advantage in making wood work in countries where the woods are available, as well as cheap steam producers, besides the saving of carrying so much waste timber such a long distance, for at least one-seventh of the timber imported here is cut to waste in planing, sawing and refuse. The extra cost of carrying manufactured articles would, I judge, not nearly amount to the difference.

"There are numbers of things which are in everyday use in buildings which could be manufactured and sent to this country. Take, for instance, door frames, sash frames, and casing for both; sash bars, skylight bars, same for greenhouses ond conservatories; single moulds, 1 inch to 3 inches; architraves, 3 to 12 inch; skirtings, bases, plinths, handrails, ballusters, plan and turned newels, moulds of all kinds, narrow boarding for casings, wood blocks for block flooring, white oak flooring, garden frames, cupboard and framing shelving, sash cells, etc. It would be much better for several manufacturers to combine and get one good representative than to appoint unknown men; for building work he must have a connection among architects and builders, and he must be prepared for uphill work at first, and the work he seeks to introduce might be in two qualities of timber but both equally well seasoned. I may name that recently a large company has been formed to extend the work of a man in Yorshire who has been making doors, sashes, etc., and there are several such works now in operation in England, and they seem to pay well. With regard to white coopery, etc., a large warehouse has been opened in this town for United States production lately, though there was a smaller one previously; but a large number of tradesmen throughout this country and now selling American goods, such as tubs, ladders, boxes, brush handles, butter bowls and workers, and an endless variety of their manufactures."

(*To be Continued.*)

## THE BAND SAW MILL.

Mr. J. R. Hoffman writes to the *Northwestern Lumberman* from Fort Wayne, Ind., as follows: "Having had 15 years practical experience in using band mills, I consider myself competent to give an opinion of its merits gathered from solid facts.

We have been using the band saw mill for sawing logs for the last 15 years with unvarying success, and at no time have we used a band mill—and we have used nine or ten of them—that had not a sawing capacity of 20,000 feet of one-inch boards per day of ten hours, and at times we have sawed 30,000 feet of soft wood in ten hours. As to its average capacity, we sawed 6,000,000 feet in one year with one machine, running part of the time night and day.

It has been a great wonder to me that the live, shrewd northwestern lumbermen have gone on from year to year, for at least the last ten years, without seeing and testing the advantages of the band saw in the manufacture of lumber economically, as regards both the lumber saved and the power required to manufacture a given quantity of logs—scale measure—in a given length of time.

A 60-horse power engine will run three band saw mills with a capacity of 20,000 or 25,000 feet each, per day, with a surplus of power to run the necessary edgers and cut-offs to trim the lumber. Take this as a starting point, then say the mills average 20,000 feet each, and and you have 60,000 feet per day of ten hours. On this amount you save in saw kerf—the band saw taking only one twelfth of an inch—over the ordinary circular saw in use, at least 2,000 feet on each 10,000 feet sawed, which would make 12,000 feet or one-fifth more lumber from what goes into sawdust, for which in some cases furnaces are erected to burn, the "hells" costing more than one band saw mill.

This 12,000 feet destroyed would at least be worth $10 per thousand, or $120, which is lost per day—or $24,000 in a season's sawing of 200 days. This $10 per thousand is a low estimate for first-class pine lumber, as a considerable proportion would be uppers worth 50 per cent. more, which would make it at least $30,000 lost (or saved) in 200 days' sawing.

For instance, say, three mills cost $6,500—put up and started, exclusive of power—you would still have a nice little margin of $23,000 on 200 days' sawing, and also have your mills.

To the mill men who value the lives of their men—and we know both the humane and thrifty do—we say we know of 50 band saw mills in use that have never, for the last ten years, fatally injured a man.

Another advantage in the use of band saw mills in pine or any other kinds of lumber; you can saw a taper log or a partly rotten log, and get all the good lumber out of it there is in it, which you cannot do with a gang saw.

I, and the firms with which I am connected, have always gotten a better price for band sawed lumber than any other in the market; this, if true, should for ever set at rest the question whether the band saw is capable of making good lumber.

The calculations and estimates of the advantages of the band saw furnished by us and published in the *Lumberman* nine or ten years years ago were entirely too modest. But, even on that basis, there has been more than $50,000,000 worth of lumber ignorantly, carelessly, or wantonly destroyed since that time.

Lumbermen have gone mad in their strife for the rapid manufacture of lumber regardless of waste or economy, and given some cause for the apprehension of nervous "denudatics."

Mark the prediction. The mulay saw is gone; he circular saw must go; the gang saw—though a splendid piece of machinery—must yield to the superior and more versatile claims of the band saw, which can do more of all kinds of sawing with the same amount of power than any other kind of of saw mill in the world.

But I hear the arrogant, but perhaps successful lumberman, who has made his pile by main strength and awkwardness, and has a right to his arrogance, say: "The band saw mill is too slow." Now I would like to ask him—for it is a mystery to me—why $100 saved in a week's work on the wages of men employed is worth so much more than $700 saved on lumber wasted in sawdust in the same length of time? After all, it takes just as many men to handle the same amount of lumber on a circular that it does on a band saw.

I repeat, the band saw will saw more lumber in proportion to the power used than any other saw in the world.

## Work in the Lumber Shanties.

The Belleville *Ontario* says:—There is a fine depth of snow in the woods at the present time, just suited to the operations of lumbermen, and shantymen are at work busy as formerly cutting the giant pines of the forest and hauling them to the lakes and streams. Many shanties were disbanded very recently owing to the absence of snow without which it is next to impossible to complete the work, but since the late storm, extra wages have been given to men to return to the woods. The business is now proceeding briskly again, and should a few weeks of winter follow, lumbermen will make greater calculation on the season's cut.


## How Women Differ from Men.

At least three men on the average jury are bound to disagree with the rest just to show that they've got minds of their own; but there is no disagreement among the women as to the merits of Dr. Pierce's "*Favorite Prescripton.*" They are all unanimous in pronouncing it the best remedy in the world for all those chronic diseases, weakness and complaints peculiar to their sex. It transforms the pale, haggard, dispirited woman, into one of sparkling health, and the ringing laugh again "reigns supreme" in the happy household.

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Buy this Brand, which is the only and Original Private Plantation JAVA on the Market.

Our Coffees always put up in 50 or 25 Lb. Air-tight Tin Cans thereby retaining all the Original Strength & Aroma.

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## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

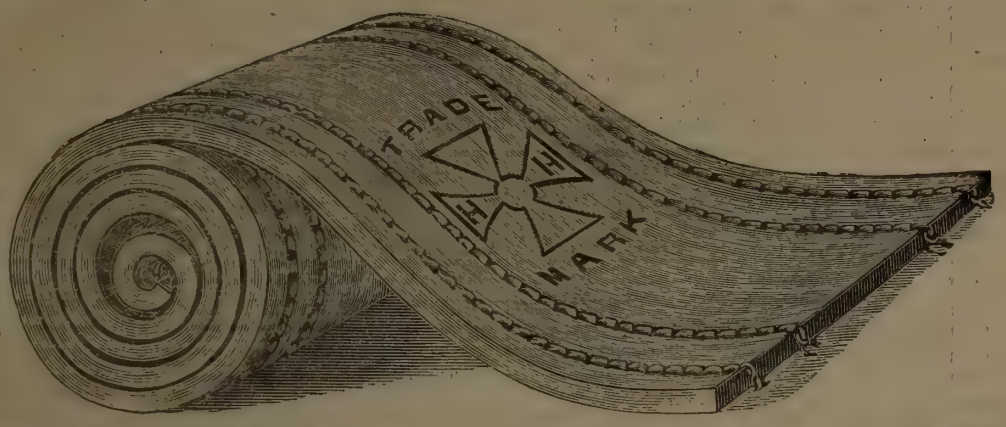
**TESTIMONIAL.**

IRA GOULD & SONS, CITY MILLS,
Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




**TESTIMONIAL.**

PECK, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT.
Supt. H. S. & H. N. Dept.

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***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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**Without loss of time or great expense. Ten or Twenty Dollars spent in ELECTRIC BELTS will do you more good than a hundred expended any other way.**

**CRYING BABIES.**—Babies cry because they suffer. Their little gums are inflamed, and their bodies are more or less feverish. If you will tie around their necks one of NORMAN'S ELECTRIC TEETHING NECKLACES you will see a wonderful change for the better, their sufferings cease, and their general health improves. Ask for Norman's, and take no other, and you will be pleased. Price 50c.

**FEVER AND AGUE.**—Do not throw away money on worthless remedies, when NORMAN'S ELECTRIC BELTS will cure you. Use one and you will find immediate benefit. Every one is guaranteed.

**LUMBAGO.**—Those who suffer from this disease will find a friend in NORMAN'S ELECTRIC BELTS when all other remedies fail. Ask your druggist for it, and take no other. Guaranteed.

**CONSTIPATION AND BILIOUSNESS** and all disorders of the Stomach and Liver are corrected by using NORMAN'S ELECTRIC BELTS. Try one and be convinced. Guaranteed.

**FEMALE TROUBLES.**—Ladies are benefited more by NORMAN'S ELECTRIC BELTS than by all the science of medicine. They are comfortable and durable. Guaranteed.

**WEAKNESS** and Lassitude yield to the influence of NORMAN'S ELECTRIC BELTS when all other remedies fail. Try one and you will suffer no longer. Every belt guaranteed.

**NERVOUS DEBILITY.**—This dreaded and miserable disease is immediately relieved by the use of NORMAN'S ELECTRIC BELTS. Ask for them, take no other. Every belt guaranteed.

**INDIGESTION AND SLEEPLESSNESS.**—This seven headed monster is more easily overcome by the use of NORMAN'S ELECTRIC BELTS than any other remedy, and it possibly cannot do any injury. Guaranteed.

**RHEUMATISM** cannot remain long with any one who uses NORMAN'S ELECTRIC BELTS, and Neuralgia is driven away like smoke before the wind. Give one a trial. Every belt guaranteed.

**NERVOUSNESS** may be entirely cured in a short time by using one of NORMAN'S ELECTRIC BELTS, without any fear of injury. Try one and be convinced. Guaranteed.

***TESTIMONIALS –A few Sample Testimonials that speak for Themselves.***

MR. A. NORMAN, WALLATTA, D.T., December 17th, 1883.
DEAR SIR,—I am happy to inform you that the Appliances I got from your Chicago agent have had a most marvellous effect upon my patient who suffered from Sciatica. He could get very little relief from medicine. Shortly after he got your belts he was able to get out of bed, and is now on a visit to his Canadian friends. Send me some more circulars. Yours truly, DR. D. McLACHLAN.

MR. NORMAN, PERTH, ONT., June, 1883.
DEAR SIR,—I have been wearing your Electric Insoles for about six months, and have been greatly benefited by them. I recommend them to all who suffer from Rheumatism. Yours truly, MRS. J. GUTHRIE.

A. NORMAN, ESQ., OTTAWA, September 3rd, 1883.
DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way. Yours truly, R. E. HALLIBURTON.

A. NORMAN, ESQ., PETERBOROUGH, October 15th, 1884.
DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured my cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good. Yours truly, J. GREEN.

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Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them. Consultation free. Circular on application.

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## A. NORMAN, Proprietor, 4 Queen Street East, Toronto.

## AN IMPORTANT MILL FLOWAGE DECISION.

A despatch from Washington states that the United States Supreme Court has decided the case of Head vs. the Amoskeag Manufacturing Company, known as the overflow case, sustaining the decision of the court below. The question at issue was whether the New Hampshire flowage act of 1868 is in conflict with the provisions of the 14th amendment to the United States constitution. The highest court of New Hampshire held that such legislation is constitutional and valid. The United States supreme Court sustains this decision. The decision is one of great importance in and out of New England. It determines the constitutionality of the "Mill Acts" in force in most of the States, by which land is condemned to dam streams for water power. This feature of the right of eminent domain has been maintained in all the States save Vermont, Michigan, Alabama and Georgia. It was brought in question in the Supreme Court on the ground that it is contrary to the 14th amendment to the constitution, in that it deprives citizens of their property without due process of the law, and under the changed methods of to day the use of water in driving mills of private parties is not an imperative and public necessity. The decision affects the "Mill acts" of more than thirty States. The "Mill acts" in the different States are so nearly identical that the decision of the Supreme Court seems to decide the validity of all.—*Boston Journal of Commerce.*

## SWEDEN AND THE ENGLISH TRADE.

According to what we are given to understand from Sweden great difficulties appear to stand in the way of an agreement binding the principal millowners in the north of that country to diminish the "get" of logs this winter by 30 per cent. under the average of winters 1882, 1883, and 1884. If the proposal of the Society of Sawmill Owners and Timber Exporters of Stockholm should prove abortive, it can scarcely fail to have an unfortunate effect on prospects for first open water, inasmuch as importers will, in all probability, make their purchases under the apprehension of glutted markets later on in the season.

As far as we are able to judge, there is every reason to believe that the different markets will be required to absorb at least 700,000 Petersburg standards of Swedish sawn and planed wood in 1885, without reckoning the not inconsiderable quantity exported via Norwegian harbors. An important question, therefore, for both importers on this side and saw mill owners in the Scandinavia is whether the markets can bear this large quantity without disturbance. To enable us to answer this question with any pretensions to accuracy, we must try to ascertain what our neighbors in Finland are likely to do.

During the late season our Finnish friends have done their utmost to neutralize the effect of the diminution in the export from Sweden, having shipped altogether probably 310,000 standards—the largest quantity on record. This export has been made in the face of the asseveration that a very large diminution indeed in the number of logs got out last winter had taken place in Finland. Subsequently this heavy shipment has been explained as a consequence of the large stocks carried over from 1883, but this can only partailly have been the case, as we have been informed by responsible people in the south of Finland that a heavy f.o.w. shipment may also be looked forward to next year, and which could not have been the case had a substantial diminution in the log-get winter 1883-1884 really occurred. A combined shipment of about a million Petersburg standards of sawn and planed wood from Sweden and Finland may therefore, with every show of probability, be relied on in 1885.

At the present low prices of almost everything that goes towards the building of a house, prices can hardly by anything short of a miracle fall lower, it does not require a seer to inform us that we are likely to witness a considerable amount of activity in the building trade before long. In spite of the collapse in the shipbuilding trade, which was a foregone conclusion many months before it happened, the complaints of timber importers even now are rather on the score of small or fractional profits than the absence of demand. All large concerns, therefore, with command of capital, that have too little accommodation, will doubtless sieze the present opportunity to make any extensions that may be required, as well as to put their works and premises into a good state of repair. We are thus of the opinion that, in spite of the present indifferent outlook in many branches of industry, an average demand may be looked for in building timbers next season in this country under the stimulus of low prices.

Continental markets, and especially those of France and Spain, are, however, in a worse position than our own as far as the consumption of sawn wood is concerned. Unless an early change for the better occurs in the countries referred to, any substantial improvement in prices of inferior and medium qualities of sawn redwood is out of the question for f.o.w., as millowners will be obliged to force too much wood of this class upon the market, same as has occurred in the late autumn, and which is at present keeping down prices in London. The course of the market for next season is very much in the hands of millowners themselves; with a reduction of 25 per cent. in the production of raw material this winter between Gefle and Hernosand inclusive, on the Swedish side and a corresponding diminution in the south of Finland, firm markets for the first open water might be anticipated, and which would probably develop into a rise before the close of the season.

Importers will, in all probability, be in no hurry to purchase for next season, to judge by the absence of business to date. This, we think, is questionable policy, as we believe the earliest birds will be likely to get the best worms in 1885. It must be borne in mind that both in Finland and Sweden the floating for the past three seasons have been exceptionally successful, and rivers are consequently bare of logs in the interior, so that a partial failure in the floating would have a very quick effect. It is not, of course, likely that a want of water will be experienced next year, but it is a contingency that might easily occur, and ought decidedly to be taken into account. Whitewood producers, both in Sweden and Russia, have done exceptionally badly this year, and have dropped money, so that the best firms will doubtless reduce their production. The weak ones cannot sometimes do this.—*Timber Trades Journal.*

## THE ENRICHED GRAINED VARITIES OF WOOD.

It was not until many millions of feet of the more richly grained redwood of California had been recklessly and thoughtlessly consumed for general purposes, that special attention was attracted to the fact that a considerable percentage of redwood lumber possessed character istics of great beauty and inherent qualities as to shrinkage and in other particulars, which entitle it to favorable consideration among the ornamental wood of the United States, for manfacturing and house finishing purposes During the earlier periods, and until more recent years, the rich, curly "bird's eye," and other peculiarly marked species were cut for rough lumber. The softer, straight grained kinds being so much more easy to work, less liable to shrink endwise, and not so liable to split in nailing, because the favorite material for building and other purposes for which redwood was used, to the exclusion of the waivy and peculiarly grained varieties from the list of first-class redwood. Consequently, trees, or logs indicating the very features, which of late have given prominence to California redwood, were cut into plank, scantling and dimension lumber, where size and strength were specially required; and millions of feet of choice grained wood have been split into railroad ties, and cut up for fire wood, and otherwise destroyed, which, if to-day was available in board lumber, and on the markets, would command a largely advanced price over and above present merchantable, first class redwood.

The redwood forests of California have yielded some most beautiful specimens of tree growth, which for richness and peculiarity of grain, is excelled only by the finest of costly hardwood. The peculiarity of shrinkage endwise is, perhaps, special to this wood, but does not extend beyond thorough seasoning, which perfects itself much more rapidly than in California sugar, or Eastern States pine. The value of the one discarded kind of redwood for manufacturing and finishing purposes has greatly increased during the past few years, and the present demand is greater than the supply of the handsome variety, even for home consumption. Consequently, manufacturers of redwood lumber are paying attention to this fact, and will in the future regard with special interest such trees as will produce the rich grained article.—*California Architect.*

## THE COST OF INSURANCE.

As some proprietors of wood working establishments believe that their insurance costs them too much, it seems worth while to make a few comments on this subject.

In the first place it may be admitted that insurance rates are, generally speaking, rather high, even when full weight is given to the frequent and heavy losses sustained by the companies. But we do not pretend to say that this fact is ever a sufficient excuse for neglecting to insure. Our position is that to be insured is a duty every business man owes to himself and to his creditors, and one who omits this precaution through pure parsimony, as some unfortunately do, deserves little sympathy if he comes to grief thereby.

But we believe that, after making all due allowance for losses, an insurance company which exercised reasonable caution in accepting risks might offer rates lower than now prevail and yet realize a fair profit.

But the trouble with most of these companies is that their management and methods of doing business is too expensive. Most of them have high salaried presidents and numerous other officials whose positions are almost sincures, the bulk of the work being done by subordinates much less liberally remunerated.

Another source of heavy expense is the commissions paid to agents and for this it is only just to say that the public is largely responsible. A large proportion of people would never resort to insurance if their attention were not called to the matter by personal solicitation, and the agents who perform this work must be paid for their time and trouble. But this burden does not fall upon the men who deal with agents. It is a tax distributed among all the policy holders of a company, and few people not actually engaged in the insurance business understand how heavy a tax it is.

If these agents could be dispensed with, the result would be a very decided decrease in insurance rates. It is a matter which the public has in a measure in its own hands. If it insists on employing agents instead of applying directly to the companies, it must expect to pay the agents for his services. We do not say that as a rule he is paid more than he deserves, for his business is arduous and often disagreeable, but the question is why should such a host of agents as now exist be employed at all? Some are, of course, necessary; but for one of these there are twenty who could well be dispensed with. But the public has not yet decided to part with them, and until it does it is hardly worth while for it to grumble at high rates of insurance.—*Saw Mill Gazette*

### The Age of Trees.

An eminent Scotch writer upon forestry says that of all the forms of nature, trees alone disclose their ages candidly. In the stems of trees which have branches and leaves with nettled veins—that is to say in all exogens—the increase takes place by means of an annual deposit, spread in an even layer upon the surface of the preceding one. In the earlier periods of life trees increase much faster than when adult—the oak, for instance, grows more rapidly between the twentieth and thirtieth years, and when old the annual deposits considerably diminish, so that the strata are thinner and the rings proportionately closer. Some trees slacken in rate of growth at an early period of life; the layers of the oak become thinner after 40, those of the elm after 50, those of the yew after 60 years.

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### Lumber Shipments to American Ports.

A careful estimate places the amount of manufactured lumber in the shape of spruce deals, palings, laths, etc., pine planks and boards, shipped from St. John to American ports during the year 1884, at 75,000,000 feet. Probably deals alone, ranging from six to sixteen inches in width, would foot up to nearly one half this quantity. In this trade our people have comparatively little interest, as it is controlled almost entirely by Americans, under the provisions of the lumber treaty, yet it is really of considerable importance. The logs are cut on the Aroostook, Fish, Meduxnakeag and other rivers wholly on American Territory, but before they reach their destination a great deal of labor is given to provincial loggers, stream drivers, boomsmen, millmen and those employed or interested in shipping. The quantity shipped in 1884 was about equal to that of 1883, although the Aroostook log cut amounted to only 48,000,000 or about 15,000,000 less than in the previous year.—*St. John, N. B., Telegraph.*

### Terrific Boiler Explosion.

WILLIAMSPORT, Pa., Jan. 12.—The boiler in the saw mill of Weigel & Babst, opposite here, exploded this afternoon. Peter Houser and Thomas Purvis were instantly killed, and seven others seriously injured. Daniel Babst, one of the proprietors, was so badly scalded that one of his legs had to be amputated. He is not expected to recover. The force of the explosion was terrific, not a timber of the mill was left standing. A visitor to the mill said to fireman Purvis this morning. "That boiler isn't safe." Purvis replied, "I'll risk it." It is stated that the boiler was full of leaks and two flues plugged.

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### WATER POWER AND OUR FORESTS.

The relation of our water power to the forest is very intimate, and has been for years a matter of investigation, in view of the irregularity and decline of the one with the destruction of the forests. There may not have been proven to be an aggregate decrease of rainfall as forest have disappeared, but the retention of the water and its distribution has been so affected that streams that formerly gave steady and reliable power are now alternately dry or flooded. In 1880 Massachusetts had 3,046 water wheels, while those of New York and Pennsylvania were respectively, 9,752 and 7,075. In Massachusetts 44.67 per cent. of the power used in her manufactures is water. The latter state has given this problem of the forest connection with this power a large attention, and has made attempts at legislative action. An exemption was proposed of forest lands from taxation, but was opposed on the ground that it would be equivalent to a bounty on certain lands that would be held as a recourse when the markets were favorable, and throw an undue burden on the others. A forest commission was finally appointed to secure through the State census supplementary data to that of the national of 1879.—*Boston Journal of Commerce.*

### Repairing Belts.

When a leather belt has been slightly injured by rain or being wet in any other manner, it should be dried as much as possible, and laps that may have started can be fastened by a little cement composed of equal proportions of good glue and Prussian gelantine dissolved in water, and cooked in a tin vessel set into a larger one containing water. The vessel containing the cement should not be allowed to set quite on the bottom. Cook until quite thick and ropy; then work into the places where the laps are started by means of a knife; then by means of a knife; then hammer the belt until dry, and a few pegs may be used, which is can be obtained from any local shoemaker. Cut the pegs off a little from the surface of the belt on the reverse side, and hammer them down on a flatiron, anvil or lapstone.—*American Miller.*

### A Timber Trade With China.

According to Mr. Gardner, the English consul, a great trade could be done in timber in China were it not for the obstacles placed in the way by the native authorities. The reason alleged for discouraging the trade is that the inhabitants of the forests are wild and lawless and trade might lead to roits; perhaps the real reason is that they fear the country would be deforested. The taxes and cost of carriage for bringing down timber from places under 40 miles' distance add several hundred per cent to the prime cost. In some parts of the country large oak trees can be bought for a few shillings. Labor is cheap, men can be got at three pence a day; at Ichang 8d. or 9d. has to be paid. The Chinese do not value the oak. It is only used for burning into charcoal and for making the bottoms of canoes. With the native primitive tools the oak can only be sawn and shaped with great labor.

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y-L27.


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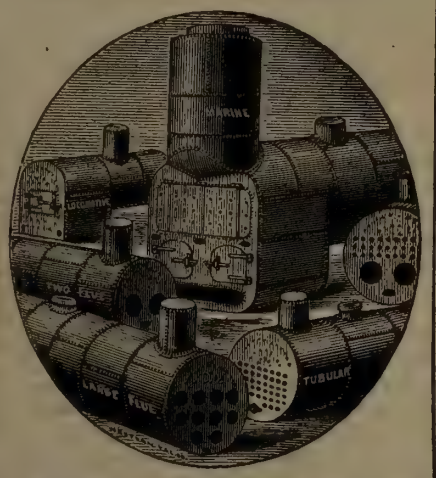


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The CANADA LUMBERMAN is filed at the Offices of MESSRS. SAMUEL DEACON & CO., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., FEB. 1, 1885.*


A PAVING block and a box factory are to be new industries in Evart, Mich.

WHILE at work in Graham's camp, Alpena district, Mich., Wm. Bishop had a leg broken in two places by a falling tree.

WOOD to the amount of 1,900 cords has been sold to the Michigan Central railroad, at Bloomingdale, Mich., at $1.10 a cord.

PETER MCGUIRE was instantly killed by a log rolling over him while at work in Blodgett & Byrne's camp, near Roscommon, Mich.

SQUARE timber from points on the Detroit, Mackinac & Marquette railroad is arriving at St. Ignace at the rate of six to eight car loads a day.

ONE of the Quebec timber firms has already chartered a few vessels in the English market for spring sailing. The rates of freights are, however, said to be very low.

THE Grand Rapids & Indiana railroad is to build a dock at Mackinaw City, Mich., and contracts for timber are being made along the line of road.

THERE is a capital of $832,000 employed in the manufacture of sash, doors and blinds at Minneapolis, 1,419 hands turning out a product valued at $1,824,000.

THE S. C. Hall Lumber Company lately conveyed to Stephen C. Hall lands situated in Egleston and Moorland townships, Mich., for a consideration of $45,000.

THE Lumber shipments from Dalhousie, N. B., during 1884 amounted to 18,235,140 feet of deals; 2,953 tons of birch timber; 1,476 tons of pine timber, and 411 tons of spruce timber.

THE schooner Afton, loaded with lumber at St. John, N. B., for Portland, Me., sprung aleak January 15, at the former place and filled with water. She will have to be discharged.

A CURTAIN roller factory is to go up on the site of Walworth and Reed's mill, lately removed, at Muskegon, Mich.

THE Rathbun Company are building a new tug boat to replace the Sherwood, burned last summer. The new craft will be 63 feet keel, 15½ feet beam, and 7 feet depth of hold.

WIGGINS, COOPER & CO., of South Saginaw, Mich., are erecting a new saw mill, which will be ready for business as soon as the river opens in spring.

IN making excavations for new waterworks at Richmond, Ind., an old corduroy road, buried about four feet for seventy-two years, was struck, and some of the logs are nearly sound as when placed there.

CASS & MORRISON have purchased from Seymour Brothers, of Manistee, Mich., 5,000,000 feet of standing pine tributary to the Sauble river, in Lake county, Mich., which will be logged this winter.

OVER 200 men and 80 horses are employed in the woods up the river from Oxbow, Aroostook county, Me. This being the settlement nearest to operations, it is headquarters for them. The force is mostly from New Brunswick.

THERE is talk among the lumbermen of Fairfield, Me., of forming a company to build a pulp mill to use the dust and shavings from the mills. Twenty-horse power will turn out five tons of dry pulp daily from one machine.

THE Rathbun Lumber Company have commenced the work of enlarging their deck at the Grove Inn, Kingston. It will be extended 280 feet. Mr. Charles Dryden will superintend the construction of this important work.

A STEAM inspection car was lately shipped by M. M. Buck, of St. Louis, to Algiers, Africa. The wood-work was made of red cedar, that being considered the best to resist the ravages of worms and all parasites that abound in Algiers.

THE lumber fleet of Manistique, Mich., next season, promises to be two lines of steam and tow barges to Tonawanda, N. Y.; steambarge and tow between Chicago and Thompson, and a large sail fleet, and possibly a steambarge out of South Manistique.

BUILDING in Montreal during 1884 was more extensive than in the year previous by about one-fifth. There were 318 new buildings erected, at a cost of $1,008,015. Among the buildings were five storehouses, four factories, 24 shops or stores, and 464 tenements. In 1883 there were erected 260 buildings.

THE cut of spruce logs on Grand lake and tributaries, New Brunswick, last year, was 10,000,000 feet, including the cut of Salmon river. This winter all the old operators are in the field, but it is thought that the input of logs will be less than 7,000,000 feet. A new enterprise this winter is the cutting of birch and maple cordwood for the Boston market.

LOGGING in Maine is being reduced to a civilized social status. At Tracy & Lane's camp, on the Missataquoik, the comforts of village life are being introduced—indeed, the camp has the appearance of a small village. Mr. Tracy, the manager, has built a house 40x50 feet in size, and his family of 14 members have taken up their residence there. A teacher has been employed to instruct the children as if they were at home.

ON the Sturgeon and Veuvre rivers, northern tributaries of Lake Nipissing, Ont., and crossed by the Canadian Pacific railway, the lumber interests are quite extensive. There are two mills at Sturgeon Falls. On McLeod's bay Barnet & McKay have a large depot, and from thence ship square timber by rail to the Quebec market. This winter they are taking out logs J. R. Booth, of Ottawa, to be transported by the Nipissing & Nosbonsing railway.

## NEW BRUNSWICK TIMBER INDUSTRIES.

WE have to acknowledge our indebtedness to Mr. Ira Cornwall, the representative of New Brunswick in Great Britain, for his very full and able description of the timber industries of his Province. Our readers will find that we give a large instalment of his account in this issue, intending to continue it next month. The paper in question is a valuable contribution to "Hamilton's Handbook of St. John and the Province of New Brunswick," a work well adapted to bring that Province under the notice of the public both in Canada and other countries and to forward its interests. It was very desirable that full justice should be done in this work to the lumbering and allied trades, as being among the most important industries of the Province, and this end has been attained by confiding this department to Mr. Ira Cornwall, with his ready pen and thorough knowledge of the subject. The other Provinces of Canada would find it to their advantage to follow the example of New Brunswick in this respect.

## HARDWOODS.

Later years have witnessed a decided change and expansion in the demand for hardwoods. Not only are woods coming into the market for decorative purposes which ten or twenty years ago were unknown or despised, but the uses for well-known hardwoods have multiplied, and the prices of some have gone so high that substitutes have been sought and often found. In our enquiries this week about the hardwood market in this city we have gleaned the following notes and prices: Birch is in fair request, and will be more wanted year by year. For No. 1 and 2 we quote $22.00 to $25.00 per 1,000 feet, board measure. Maple, steady at $16.00 to $18.00. Cherry, firm at $50.00 to $55.00. White ash, $30.00. Black ash, $18.00 to $20.00. Soft elm, the market is hard to define, sales are being made as low as $12.00 to $15.00; for rock elm probably $18.00 is a fair quotation. Oak, red or grey, is in moderate supply and brings $18.00 to $20.00; white, say $80.00 for No. 1 and 2. Cotton wood, or Balm of Gilead, $13 00 to $15.00. Walnut is scarce, and good is worth on the spot from $85.00 to $90.00 for inch, Nos. 1 and 2.—*Monetary Times.*

## LUMBER.

The position of affairs in the United States during the winter has in part accounted for the quietness in this line of Canadian trade. Not, perhaps, so much the peculiar commercial conditions (though even these were not favorable) as the uncertainty felt by business men as to the policy of the new government of that country. Added to this has been the depressed condition of the real estate market over there. The recent indications, however, of returning activity in manufacturing in the States—one hundred thousand persons, who were out of employment for some weeks or month, are said to have returned to work in factory, mill or furnace since 1st January—are insignificant, and cannot but have their effect upon the lumber market.

A lack of snow early in the winter has been unfavorable for operations in the Canadian woods, and it is thought that higher prices must come about in spring. Hence some are disposed rather to buy now than to wait until the opening of navigation, only to pay higher prices. We hear of considerable sales at Ottawa, of pine lumber—one to two inch sidings and stock boards—lately made for the American market. —*Monetary Times.*


### A Handy Calender.

We have received from McColl Bros., of Toronto, the well known manufactures and dealers in Lardine and other machine oils, a copy of their new office calendar for 1885. It is a very effective reference of the daily dates, the figures being clear and bold, and the weeks being distinctly divided by the Sundays being printed in red ink. McColl Bros are also large dealers in the best known qualities of coal oil.

* * * * The worst pile tumors cured in ten days, rupture in one month. Pamphlet two (3c.) stamps. World's Dispensary Medical Association, Buffalo, N.Y.


## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Jan. 13, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C.:—

310,735.—Saw filing machine—H. Sherman, Waverly, Pa.

310,866.—Saw frame rod—C. Tenney, Brooklyn, N. Y.

310,848.—Saw mill set works—D. C. Pren, N. Marinette, Wis.

310,708.—Saw swaging machine—B. H. Millan, Bay City, Mich.

310,563.—Sawing machine, scroll—A. S. Davis, Seneca Falls, N. Y.

310,737.—Tool holder, lathe—J. M. Smith, Seymour, Conn.

PATENTS ISSUED JAN. 20.

310,029.—Floor board clamp—A. B. Patten & F. E. Sprague, Corinna, Me.

310,964.—Marking gage—R. Steele, New Britain, Conn.

310,136.—Plane, bench—C. L. Mead, New York, N. Y.

311,063.—Planer feed roll.—J. Connell, Rochester, N. Y.

310,880.—Wood preserving apparatus—E. Z. Collings & C. F. Pike, Camden, N. J. and Philadelphia, Pa.

310,926.—Wood steaming apparatus—V. Wheat, Orleans, N. Y.

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Dec. 1884, and first 12 months of the year:

MONTH ENDED 31ST DEC. 1884.

| *Timber (Hewn).* | *Quantity. Loads.* | *Value. £.* |
|---|---|---|
| Russia | 9,268 | 18,166 |
| Sweden and Norway | 21,275 | 28,923 |
| Germany | 13,531 | 29,271 |
| United States | 4,831 | 20,773 |
| British India | 282 | 3,896 |
| British North America | 8,194 | 33,259 |
| Other Countries | 22,589 | 47,870 |
| Total | 79,920 | 182,158 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 25,572 | 52,655 |
| Sweden and Norway | 59,623 | 138,077 |
| British North America | 33,577 | 76,351 |
| Other Countries | 11,138 | 39,226 |
| Total | 129,910 | 306,309 |
| Staves, (all sizes) | 7,855 | 47,851 |
| Mahogany (tons) | 5,840 | 53,204 |
| Total of Hewn and Sawn | 209,830 | 488,567 |

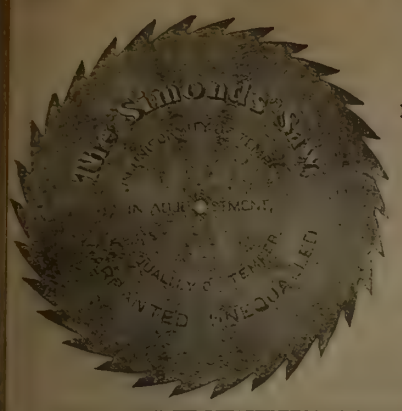
TWELVE MONTHS ENDED 31ST DEC, 1884.

| | | |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 235,389 | 437,438 |
| Sweden and Norway | 603,602 | 898,115 |
| Germany | 275,478 | 669,208 |
| United States | 159,563 | 597,492 |
| British India | 35,885 | 515,964 |
| British North America | 230,759 | 1,005,216 |
| Other Countries | 411,633 | 557,859 |
| Total | 1,952,009 | 4,681,292 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 1,100,819 | 2,353,260 |
| Sweden and Norway | 1,611,156 | 3,449,945 |
| British North America | 976,148 | 2,317,180 |
| Other Countries | 357,143 | 1,105,252 |
| Total | 4,045,266 | 9,225,637 |
| Staves (all sizes) | 135,659 | 557,814 |
| Mahogany (tons) | 62,318 | 562,707 |
| Total of Hewn and Sawn | 5,997,275 | 13,906,929 |

## OTTAWA.

The *Free Press* of Jan. 23rd says:—News from the lumbering regions is to the effect that in most parts the snow is sufficient to permit of operations being proceeded with in a fairly active manner. Whether it is from the fact that work was greatly impeded owing to the inclemency of the weather or not, at any rate there is a move towards better prices for lumber. Some dealers are of opinion that the article will be high in price next season from the restricted out put in the first place and the unsuitable weather for carrying on the trade in the second. One or two dealers from Quebec have been up the river with a view of making purchases. This is rather an unusual thing at this season of the year.

# ST. CATHARINES SAW WORKS!

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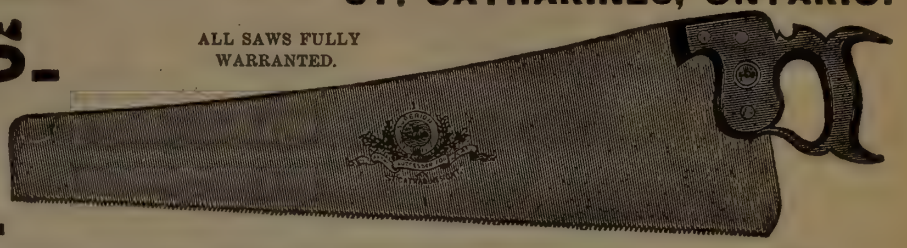

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**Grayline; the Great Hair Restorer and Renewer,** changes *gray hair* to its natural color gradually and permanently. Not a dye. A marvellous invention. Gray-haired persons, old men and odd women made to look young in three weeks. No more gray hair. Also grows hair rapidly and luxuriantly Send for descriptive book, and testimonials and opinions of eminent chemists and doctors, etc., who recommend it highly. Address, **J. H. NICHOLSON, 7 Murray St., New York.** d64w38L1


Operations on the upper Penobscot, Me., are being pushed with vigor in spite of the prevailing dullness in the lumber trade. Lumbermen are encouraged by the low cost of labor and supplies to go in for a large quantity of logs. It is estimated that crews can be boarded 20 to 25 per cent. cheaper than they were last season. A large number of men have gone over into Maine from Prince Edward island, and are working at from $10 to $15 a month. A Maine paper remarks that "there was a time, in the days of big pines, when a woodsman was looked upon as a man who had learned a trade; but nowadays almost any man is a logger."


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.


## International & Colonial Exhibitions

**ANTWERP IN 1885—LONDON IN 1886.**

IT IS THE INTENTION to have a Canadian representation at the International Exhibition at Antwerp, commencing in May, 1885, and also at the Colonial and Indian Exhibition in London in 1886.

The Government will defray the cost of freight in conveying Canadian Exhibits to Antwerp, and from Antwerp to London, and also of returning them to Canada in the event of their not being sold.

All Exhibits for Antwerp should be ready for shipment not later than the first week in March next.

These Exhibitions, it is believed, will afford favourable opportunity for making known the natural capabilities, and manufacturing and industrial progress of the Dominion.

Circulars and forms containing more particular informatiod may be obtained by letter (post free) addressed to the Department of Agriculture, Ottawa.

By order,

JOHN LOWE,
Secy., Dept. of Agric.

Department of Agriculture, Ottawa, December 19th, 1884. 6d1-6L1


**AGENTS** wanted for The Lives of all the Presidents of the U. S The largest, handsomest, best book ever sold for less that twice our price. The fastest selling book in America. Immense profits to agents. All intelligent people want it. Any one can become a successful agents terms free. Hallett Book Co., Portland Maine.

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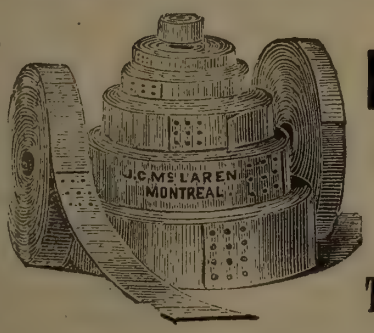


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QUALITY *is what I am at, the result being the Generous Support of all Manufacturers.*

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### LOSS OF HEAT IN FURNACES.

Most coal contains a greater or less quantity of moisture, and the evaporation of this moisture causes the first loss of heat. Radiation from the furnace causes a further loss. But the great causes of loss are the admission into the furnace of a large quantity of useless air and inert gases, and the escape of these, with the actual products of combustion, up the chimney, at a very much higher temperature than that at which they entered the furnace. Air is composed of about one-third oxygen and two-thirds nitrogen. The oxygen only is required to effect the combustion of the fuel, and the useless nitrogen merely abstracts heat from the combustibles, and lowers the temperature of the furnace. About 12 pounds of air contain sufficient oxygen to effect the combustion of one pound of coal; but owing to the difficulty of bringing the carbon into contact with the oxygen, the quantity actually required to pass through the furnace is from 18 pounds to 24 pounds of air per pound of coal burnt. The surplus air passes out unburnt, but its presence in the furnace lowers the temperature subsisting there, and abstracts a portion of the heat generated. And whereas the whole of the air enters the furnace at about 60° Fah., the unconsumed air and the products of combustion leave the flues at from 400° Fah. to 800 ° Fah. The total loss from these causes is from 20 to 50 per cent. In other words, whereas each pound of good coal burnt is theoretically capable of evaporating about 15 pounds of water, in good practice it evaporates but 9 or 10 pounds., and in ordinary practice but six or eight pounds of water.—*Ex.*

### THE EFFECTS OF THE SAP ON BLOWN DOWN TIMBER.

This is a subject which in some parts of the country, particularly this year, is of considerable importance to the timber merchants who own large quantities of blown timber, the cutting off and removal of which will occupy some years. In ordinary falls of timber it does not come within range of discussion, as the proper season for felling the various kinds of timber may be selected in the case of standing timber, but this year in many parts of the country and in Ireland, where enormous quantities of timber were blown down by the great storm of last winter, the selection of the proper time for felling has been compulsorily dispensed with, and the cutting off of the tree from the roots could not be accomplished to any appreciable extent before the sap began to flow. In most cases the tree in its fall carried with it all its roots, and with them sufficient soil to provide sap for its sustenance, so that for this season the tree's growth has not to any extent been retarded.

In their foliage the trees have presented the same appearance as when erect; but it is worthy of note that the leaf of the fallen tree has gone to decay several weeks earlier than the leaf of the standing one; and this fact invites inquiry into the reason and in what way, if any, will the timber be affected thereby. This is a matter well deserving the attention of timber merchants holding large stocks of this fallen wood. It has been generally observed that some varieties decayed much earlier in proportion to their custom than others; for instance beech and sycamore have been more affected in this manner than ash and oak; but all kinds, more or less, have succumbed to the disease, if disease it may be called. No doubt one main reason for this is that the small quantity of soil about the roots had not been able to supply in the spring so large a quantity of sap, and the roots being somewhat exposed to the action of the sun, had the effect of drying up the natural sap in the tree. But another reason, and the one with which timber merchants have particularly to do, has been, we are afraid, and which we are only setting up as a theory, the unnatural position in which the trees have been placed, thus preventing the free passage of the juices in their ascent, and especially their descent through the viens or vessels of the trunk. If this theory is correct, then the juices, instead of returning to the roots by their proper channels, have unnaturally impregnated the wood, and ultimately found a place in the under side of the tree, and fermented there, and the question is how far this process will affect the quality of the wood for another year. In some varieties no depreciation in quality could be caused, although the timber should remain for several years, but in others, especially whitewoods, if they are allowed to remain on the roots until another spring, the effect would certainly be very injurious, for the reason that the next year's fresh sap, full of all its chemical properties, will be prevented having a free passage on account of the pores of the tree being stopped up with the old exhausted sap of the previous year. It will then spread through the wood, and being then highly charged with these chemical properties will discolour the wood, seriously impair its flexibility and otherwise spoil it.

Of course none of these evil effects can arise if timber is now cut off root before any fresh growth can go on. In following out this theory the trees which more than others would be thus affected will be those whose tops are lying in a horizontal position; those lying with the tops inclined upwards, however partially so, may not be in any way impaired, as the returning sap of the previous year would then maintain a passage towards the roots and keep the pores open for future years' growth. In the peeling of oak and larch bark from the fallen trees during the last season, in a great many instances the sap did not flow on the under side of the tree, but undoubtedly the reason of this was the absence of the heat of the sun, and could not the first year of its fall have resulted from the stoppage of the pores.—*Timber Trades Journal.*

### HONDURAS MAHOGANY.

A correspondent of the *Globe* in a letter in regard to the New Orleans Exposition, says:—We next turn to the contribution of British Honduras. Imbued with the poplar idea that the colony is a desolate flat wilderness and the inhabitants negroes sufficiently Americanized to vitiate their native quailities, I was somewhat astonished when the gentlemanly bronzed individual in charge informed me that Balize is a town of eight or nine thousand inhabitants, peopled and governed chiefly by the Scotch. A living witness, a countryman of Alexander Mackenzie's, came up to the exhibitor for orders just then, and corroborated his statement. The only portion of Central America over which colors wave, it is the only spot among all the petty States that is not continually and bloodthirstly exercised over the maintenance of its dignity. Two hundred years ago a few British pioneers came to Honduras to cut logwood and mahogany. Their arrival was regarded by Spain as an impertinent intrusion, and it was only by successive treaties with that power, Guatemala, Mexico, and the United States that the colony remains British to-day. Now the exhibit. The woods first, of course, the wealth of the colony. A mahogany log 23 feet long 4 feet square, and a cedar 20 feet long and 4 feet square, are the biggest things in the space. Cedar is used chiefly for cigar boxes; but of the noble mahogany we have more to see. Two beautiful "spurs" sliced cleanly out of the root of the tree, stand ready for table tops. One is almost square, 5 ft. 4 in. by 5 ft. 6in.; the other round about 5 ft. in diameter. A beautiful horned inlaid hat-rack, and three exquisitely designed inlaid card tables, all from the Honduras Government House, where they have sojourned for eighty years, are also shown. "What is the value of one of those spurs?" I asked my pleasant informant. "There about three or four dollars." "And here?" "About twenty-five. But the market is flooded. I have 250,000 feet of mahogany in this city that I cannot sell just now. People have had a craze for black walnut, too. Now its getting scarce and they have to look to us again for woods. Mahogany will soon supersede. It is infinitely more durable than any other. Now, this piece," he added, taking up a beautifully polished piece of wood, "was taken from a log that formed part of the foundation of the old Balize court house, and which lay underground for over 60 years; as you see, it is as sound as a bell." Indian bowls cut out of the solid wood and curiously ornamented, with various other utensils, are heaped up in a basket woven of the cocoanut fibre. Here is a "pit-pan"—a long narrow boat, from 40 to 50 feet in length, but only three feet wide. It is scooped out of a mahogany log, and is paddled up the tropically shadowed rivers to the cutters with provisions. Indeed it is the only means of river transportation. Several models are shown, one with a palanquin under which the "boss" reposes on his visits of investigation. This one bears the inscription on one side, "No bodder me." Another, a perfect poem of a boat, has the legend "Sub umbra flores" engraved on the back of the seat. Rosewood and ziricote, a wood resembling ivory, come next in value. The toomu tree with its india rubber product, is also shown, and logwood and fustic, which as every school boy knows are exported for dyes. The woods of Central America are simply unknown in beauty and value. Here they stand, split and oiled and beautiful, fifty varieties. Copal, palmaletto, madre creva, ban tan, and pieces of the cabbage tree, which the natives use for clapboards. No nail can pierce its density. The fruit of the tree, when young and tender, makes an excellent substitute for cabbage.

### CANADIAN TIMBER AND FORESTS.

Sir Charles Tupper, the High Commissioner in London for the Dominion of Canada, presided at the meeting of the Society of Arts, held on Wednesday evening, December 24th, when a paper was read by Mr. P. L. Simmonds, on the "Past, Present and Prospective Sources of the Timber Supplies of Great Britain."

A short but interesting discussion followed. At its conclusion—

Sir Charles Tupper said:—Mr. Simmonds' paper has been most able and interesting. He has dwelt on his subject in a very full and a very exhaustive manner, and much more fully and much more exhaustively than appears from the condensed resume that he has favored us with to-night. And I am quite sure that the publication of this paper will be of the greatest possible use, by furnishing to others besides those who are here to-night a vast amount of most important information on this important question. It would, perhaps, be difficult to find any subject more interesting than that Mr. Simmonds has so ably brought before us to-night, and there are perhaps no two countries so deeply interested in that subject as this country, and the country to which I myself have the honor to belong—Canada—for a very different reason. Mr. Simmonds has pointed out the important fact that Great Britain is the greatest importer of timber and woods of any country in the world—and I thank him very much for the care he has evinced in collecting information on that branch—and he has drawn attention to the not unimportant fact, from a Canadian standpoint, that the forests of Canada present for this country and for the world, about as inviting a field as is to be found anywhere. In point of extent the resources of Canada are simply enormous. From the Province of Nova Scotia on the Atlantic to the Province of British Columbia on the Pacific, some 4,000 miles apart, there are in every section of that wide domain vast forests containing most valuable and important woods of various descriptions. We have nothing so enduring as the jarrah wood or as teak, but I may say that the chief engineer of the Canadian Pacific railway, on returning from his visit to British Columbia, told me that he found an order being filled there from China for six sticks 120 feet long, and measuring six feet square at the little end. I venture to say in point of size, therefore, we may boast that we can show as large timber as perhaps is to be found anywhere. And I would also draw attention at the same time to the fact that we have an enormous supply of that very Oregon timber that has been declared to be so valuable that it is sent for from New York to this country for the purpose of taking it back to America because there are so few spars in the world. (Applause.) The resources of Canada can be somewhat judged when I mention that the consus of 1881 show, that the industries connected with which wood is the staple, amounted to something like £20,000,000, and that the export of 1883 of the forests of Canada amounted to some £5,000,000 sterling. It is quite true that the somewhat sweeping censure—which I am glad to find the lecturer modified to some degree afterwards—was proved by Mr. Simmonds in regard to the wasteful character of the way in which these forests are dealt with. It arises from the fact that in both in the United States and Canada the forests were so enormous, and the supply of timber was consequently so great, that the early settler in those countries, taking his axe upon his shoulder, and going into the wilds to make a farm, came to look upon a tree as an enemy—something to be disposed of and got rid of in the most rapid manner possible. As the country has become settled, improved opinions were formed in regard to that question, and it has been ascertained that the greatest injury which can be inflicted upon a country is thus done, not only by denuding it of valuable trees, but also by the bad effect this has upon the growth of vegetation and the health of the country. The reaction in feeling has been found to be such as to attract attention to the importance of replanting the country denuded of trees, and an annual Arbor Day has been appointed for the purpose in the Dominion. I may say that the avoidance of the ruthless destruction of forests thus caused has led to very improved management in relation to that important subject. It requires a tree of a certain magnitude to furnish the industry, and it is found in cutting over a large area that by carefully leaving the smaller trees, the growth of these is so rapid that you may go back after three or four years and find a new growth ready for the axe. Under these circumstances, finding the importance of destroying too rapidly these forest growths, the various provinces are now turning their attention to the enactment of laws for the preservation of the forests, and to prevent their too ruthless destruction. I may say, however, that it is somewhat interesting, looking at it not from an English or a Canadian standpoint, but looking at it from a British standpoint, that we, who have had the pleasure of listening to this paper, feel no little degree of satisfaction in knowing that, however great may be the demands of this country for wood in all its varied forms, England can turn to one or another portion of her own Empire for all that she may require—(loud applause)—and thus occupies a position that no other country in the world fills. (Renewed applause.) It has, too, this additional advantage that in drawing the supplies to the centre of the Empire from her many colonial dependencies, she is accelerating that interchange of commodities, she is keeping up and stimulating that interchange of commercial relations, which forms the bond and binds, countries together by the most enduring tie, the tie of self interest. I do not intend to add to what has been so fully and effectively brought before us by the lecturer, to whom we are all very much indebted, except by a reference to his estimate of the amount of wood consumed for railways. It is within my own knowledge that the Canadian Pacific railway consumes 2,700 instead of 1,700 sleepers per mile, which is the amount at which Mr. Simmonds placed it.

Sir Charles concluded by referring to the wide area embraced by the paper, and remarked that the information it contained would, he thought, be read with great interest and profit by a large number of persons. He finally tendered to Mr. Simmonds the hearty thanks of the meeting for his valuable lecture.

The proceedings then closed.—*Canadian Gazette.*

### Boom in Lumbering Operations.

A despatch from Ottawa on Jan 15th says:—Preparations are being proceeded with for sending to the shanties a number of teams, owing to the fall of snow which took place to-day and which will make sleighing possible. As high as three dollars per day are being offered for teams. Lumbermen and shantymen alike are pleased at the idea of being able to proceed with work in the woods, as the matter was beginning to assume a serious aspect, work being not only stopped, but it was impossible to get supplies forwarded to the men and horses.

Composed of genuine French Brandy, Extract of Smart-Weed and Jamaica Ginger, with Camphor Water, Dr Pierce's Compound Extract of Smart-Weed excells as a remedy for colic, cholera morbus, diarrhœa, dysentery or bloody-flux, or to break up colds, fevers or inflammatory attacks.

# Chips.

McINTOSH & Co., Toronto, Ont., wholesale dealers, are succeeded by Wilmot & McIntosh.

BURDIC & SON'S shingle mill, at Waddington, N.Y., was burned December 29. No insurance.

SAMUEL MOONEY had his left leg broken January 6, while rolling logs at Pratt's camp, near Clare, Mich.

CHARLES STORM, employed in the woods near Chicolay, upper peninsula, Mich., was killed by a fallen tree.

WILCOX & WEAL'S planing mill, at Caro, Mich., was burned December 30. Loss, $10,000; insurance, $4,000.

CONSIDERABLE bird's eye maple is being hauled to Harbor Springs, Mich., for shipment to the East.

THE shipment of shaved cedar shingles from Little Sturgeon, Wis., last season was not far from 1,500,000, mostly made by farmers.

C. E. MILCHELL, of Ludington, Mich., has a contract for furnishing 1,600,000 feet of hemlock timber for work on Chicago harbor improvements.

ALBERT J. HASTEY, employed at Stevens & Ladue's camp on the Cedar, Mich., was killed, December 30, by a log on a skidway rolling over him.

ALPENA, Mich., has been in distress because of the report that a gang of incendiaries had been organized to burn some of the saw mills in that city.

LAST winter 41,000,000 ft. of logs were hauled to the Pinconning, Mich., boom on Saginaw bay. This year there will be not more than 25,000,000 feet.

CLARKSON SEELEY recently sold his mills at Freelton, Ont., to Wm. Laking for $4,100, and will engage in the lumbering business in the Ottawa district.

A SALE of 10,000,000 feet of Norway logs, at $5 a thousand, to Muskegon parties, is reported; the logs to be banked on Houghton lake, Roscommon country.

THE latest estimate of this season's log crop on Muskegon, Mich., waters, that has appeared in print, places it at 355,000,000 feet, a figure considerably below previous estimates.

THE boiler of Earnst's saw mill exploded at Goodspring Station, Pa., on Jan. 17th, killing Henry Cotton, Albert Earnst and Jacob Gehres, and seriously injuring two others.

No logging operations will be conducted by Bay City, Mich., shipbuilders this season. Last year Captian Davidson got out 1,500,000 feet of oak timber and other material, but will do nothing of the kind this season.

IN driving piles for the Northern Pacific bridge at Duluth, Minn., the sticks sometimes resist the hammer for a time, and then suddenly break through and disappear from sight—punched clear through to China, evidently.

A LOCAL authority states that some of the finest pine lumber ever manufactured on Lake Superior, is piled in the Diamond Match Company's yard at Ontonagon, Mich., awaiting shipment in the spring.

LEACH & FORRESTERS have contracted to cut the shingle timber on 1,140 acres of land southeast of Pierson, Mich., and are operating a mill having a capacity of 40,000 feet. They have timber for a three years' operation.

R. W. LINN has started up his mill and ship yard at Gibralter, below Detroit, for the purpose of building a lumber barge for Toledo parties, with a carrying capacity of 650,000 feet. The prospect for building another large vessel on the Detroit River is also favorable.

W. J. McKEE'S planing mill, and a smaller building adjoining, were destroyed by fire at Windsor, on Jan. 16th. McKee's loss will be about $10,000, insured in the Commercial Union for $3,000. McNally Bros. who used the smaller building as an insulator factory lose about $1,500, about half secured.

MOSHER & FISHER, of West Bay City, Mich., will put in but 6,000,000 feet of logs this winter, as compared to 35,000,000 feet last winter. Of the amount to be put in half will come over the Flint and Pere Marquette and half will go into the Cedar. The firm is carrying over 17,000,000 feet of logs and 20,000,000 feet of lumber.

MOSHER & FISHER, of West Bay City, Mich., last winter put in 35,000,000 feet of logs. This winter they were credited with an intention to curtail their log crop to 6,000,000 feet, half of which will be banked on the Cedar river, and the other half will be brought to the Saginaw river by rail.

A MUSKEGON lumberman has been making a tour of the lumber woods, and furnishes a detailed statement of the proposed log crop in that district this winter, which aggregates 355,000,000 feet. It is stated in this connection that the new crop, with the logs carried over over, will only amount to about 500,000,000 feet.

GOVERNOR HILL in his first message to the New York legislature calls attention to the wisdom and importance of preserving the forests of the state from destruction, so that valuable watercourses shall not be made useless that are now dependent upon the timber regions for their supply, and the leading papers of the state are commending him for his wisdom in that direction.

THE cut of spruce lumber on Grand Lake and tributaries, N. B., according to the St. John *Telegraph*, last season was 10,000,000 feet, including Salmon river. This winter Messrs. King, Hugh McLean and all the old operators have commenced work in the woods, but the most reliable estimate obtained places the probable output at less than 7,000,000 feet the weather having been very unfavorable. A new enterprise this winter is the cutting of birch and maple cordwood in large quantities for the Boston market.

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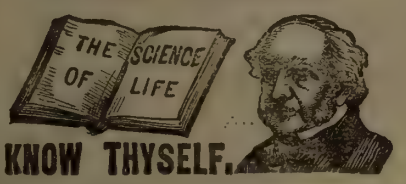


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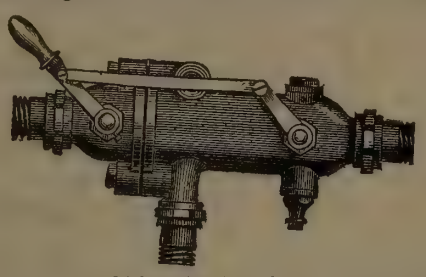

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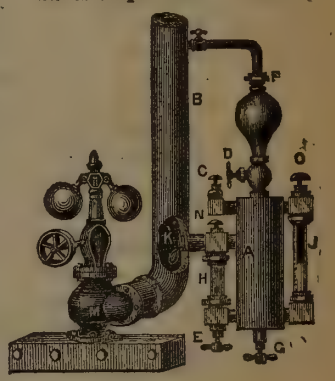


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# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

JAN. 23.—Business of all kinds is extremely quiet, the severe weather of the past two weeks has had the effect of stopping all kinds of outside work, should the weather become milder quite a large number of buildings now under way will start up again and trade from the yards will become better. The various railroad companies are doing nothing worth speaking about in lumber hauling, some days only two or three cars arriving here. Preparations are, however, being made for a prosperous spring trade. The N. & N. W. R. R. Co. have added one hundred new cars to sheir rolling stock, most of the cars being of 40,000 pounds capacity, which will enable shippers to load on 15,000 feet of dry lumber, often proving quite advantageous when vessels are waiting at the dock here for their cargo and cars hard to get. Since the advent of Mr. R. Quinn to the position of general freight and passenger agent in the place of Mr. Robert Kerr, things in general have worked smoothly, and so far as the former gentleman has it in his power, will no doubt continue to do so, the only thing to be regretted is that more liberty is not allowed him in all matters properly coming under his attention. All the power given to the various officials on this road is extremely limited, so that unless the master hand is something more than human it would be impossible to avoid some clashing. This road is nothing, if it is not a lumbermen's road, therefore, lumbermen feel an interest in everything that concerns their own and the roads welfare, and we hope that on the completion of the line to Callender that a bright future is in store for it.

Shingles are not so plentiful and have advanced by car load lots 10 cents per M. Laths are worth 10 to 20 cents per M more since the new year opened, and parties controlling stocks of lumber feel a disposition to be firm on prices, in fact the general outlook is more hopeful.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |
| B. M. | |
| 1½-inch flooring, dressed | 30 00 |
| 1½ " " rough | 16 00 |
| 1½ " " dressed | 25 00 |
| 1½ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## BOSTON.

The *Journal of Commerce* of Jan 24th says: General trade was seasonably quiet, but in certain lines and directions the open winter is keeping up a somewhat better call than usual in the carrying on of outside work. Spruce and hemlock are having a good demand everything considered. Pine holds its own on desiable stock. Choice walnut and the best poplar are firm. Ash is dull, and oak quiet. Southern pine is very dull, about the only kind moving being flooring.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## MONTREAL.

*From Our Own Correspondent.*

JAN. 26.—We have very little to report as to lumber matters this week, as no business of any consequence has transpired since the date of our last, there is, however, a firm feeling in this market, owing to the Ottawa men asking, and in some cases obtaining an advance on their late quotations, but here it is thought that an advance is not warranted in the present state of trade. Americans seem confident that towards the fall business will be active there. Freights from Ottawa are offering low for the spring and will be from 15 to 20 per cent under the rates for the same period of last year. Owing to the want of snow a considerable falling off will take place in the output of logs. It is expected that the output will be one-third less this year than last. We quote prices ex yard as follows:—

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Bass, " " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 75@2 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

LIVERPOOL MARKETS.

The imports for the month of December was one of the smallest on record, being only 268,000 feet of all kinds of timber, and 2,873 standard of all kinds of deal boards, etc., as against 534,000 feet and 6,196 standards for 1883. The consumption though small is considered fair for the light imports. The aggregate stocks are less than this time last year, but are still too heavy for the limited business doing. Consequent on the depreciation in prices the total value of the goods is materially less than for the same time last year, but prices are now believed to have touched bottom, and that with caution and a continuance of restricted imports the year 1885 may bring more of prosperity to the trade. Spruce deals from Miramichi were selling privately at £6 5s. per standard, and from Bathurst at £6 per standard, at auction from St. John, N. B., £6 3s. 6d. per standard.

## CHICAGO.

AT THE YARDS.

The *Northwestern Lumberman* of Jan. 24th says:—During the past week there has been a slight increase of shipment, despite the excessively cold weather. Though the yards scarcely average a car load a day each, the daily trains pulled out are larger than they were during the first two weeks of the month. Here and there a yard continnes to ship three or four car loads on some days, and the effect on the vision of such a string of cars from a single yard is astonishing to the dealers who are not so highly favored. With a few exceptions the merchants are making no extra effort to stir up a demand; some houses, however, have begun to send out the persuasive circular letter and enticing delivered lists.

The trade, since December 1st, has been assuming that prices were on rock bottom, and that they could be maintained if no attempt was made to force sales. The danger all along has been in the probability of a prolonged dull ness, this winter, and great impatience to sell would size the dealers before the spring demand should put in an appearance. Still another danger looms up. There are to be a number of changes in the district. It is rumoured that some concerns are to close out business, and it is quite definitely shown that changes in partnership are to take place. This means the selling out of stocks at reduced rates. Already circular announcements of such sales are going about among the yards. As usual such stocks will be mostly taken care of by the trade here, but the effects of such sell-outs is weakening to prices. The full effect of them cannot yet be fully counted on for it is not yet definitely known how many stocks will be closed out.

In regard to shingles, while holders of large stocks are strong in their views, there is evidently some anxiety on their part to know how others feel. The fact that stocks on hand, on January 1st, showed a drcrease, as compared to a like date the year previous, of 129,000,000, gave holders ground to predict firm, and probably advancing prices; but confidence, in this condition, is not expressed with that positiveness that one would naturally expect. Still, shingles appear to be more inquired for than lumber, while buyers do not hesitate, and insist on lower prices, as they do when lumber is involved.

Receipts of lumber, shingles, etc., from Jan. 1st to Jan. 22nd as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 1,649,000 | 359,000 |
| 1884 | 3,302,000 | 472,000 |

FROM JANUARY JAN. 1, 1885, TO. 22, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 6,946,000 | 2,14 ,000 |
| 1884 | 8,410,000 | 1,361,000 |
| Increase | | 779,000 |
| Decrease | 1,464,000 | |

STOCK ON HAND JAN. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 623,910,097 | 635,348,561 |
| Shingles | 332,533,611 | 461,930,496 |
| Lath | 88,160,599 | 65,981,140 |
| Pickets | 2,528,738 | 1,529,287 |
| Cedar posts | 397,825 | 397,832 |

FREIGHT RATES TO EASTERN POINTS.

In effect from Nov. 13ht, 1884, to March 1st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

| Chicago to— | |
|---|---|
| New York and common points, per 100 pounds | 32c. |
| Albany | 29c. |
| Boston and common points | 37c. |
| Philadelphia | 30c. |
| Baltimore | 29c. |
| Washington | 29c. |
| Buffalo and Pittsburgh | 18½c. |
| Erie, Pa | 18½c. |
| Dunkirk, N. Y | 18½c. |
| Troy | 29c. |
| Shenectady | 29c. |
| Wheeling | 18½c. |

## OSWEGO, N.Y.

*From Our Own Correspondent*

JAN. 24.—We have no change to note in quotations; very little lumber selling, though there is some improvement over the past two months, and the outlook seems to be in favor of a better demand.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 22 00@25 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1½x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ⅝ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ⅝-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ⅝-inch | 30 00@32 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 2 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ℔ M | 0 00@ 2 00 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## TYNE.

The *Timber Trades Journal* of Jan 10th says:—There have been a very miscellaneous lot of arrivals during the last seven days, none of which call for any very special notice; they mainly consist of hoops, staves, and pit-props, all of which come forward to a very poor market, the demand for these goods being very small. Business has only, as a whole, been resumed since last Monday, and so far shows little sign of activity or life. Building is going forward in only a very limited way. A few orders have been received for a special class of iron steamers, which will employ some of the yards, and a little better tone appears to prevade that trade.

Mr. R. Mack advertises for sale by auction a cargo of Santa Ana mahogany daily expected n the Tyne. No mahogany having been imported here for some three years, a lively competition may be fairly expected if quality is suitable.

## GLASGOW.

The *Timber Trades Journal* of Jan. 10th says:—Public works have been closed during the past week for the New Year holidays, and, consequently, very little has been doing in the timber trade.

Imports have been only a few parcels of staves and oak plank per steam liners. No auction sales by timber brokers here are announced yet. We learn that a cargo of Mexican mahogany has been ordered from this port from Queenstown by Messrs. Skelton & Schofield. It should meet with a fair demand, as there has been no import here for several months.

A summary of last year's business shows that the imports of wood have been considerably under those of the preceding year. From British North America the carrying tonnage was in 1884, 67,000 tons; and in 1883, 133,000. From pitch pine ports in 1884, 35,826 tons; and in 1883, 14,370 tons.

Stocks of Quebec goods are nearly all, as might be expected from the smallness of the year's import, under the quantities on hand a twelvemonth ago; but of pitch pine the stock now held is rather heavier, although there have been no arrivals since the month of August. The consumption of pitch pine during the past year has been about a fourth under that of 1883, owing, no doubt, to the dulness in shipbuilding.

## LONDON.

The *Timber Trades Journal* of Jan. 10th says: Buyers gathered in pretty good force at Wednesday's sale, and the breathing time which the holidays afforded the trade evidently had a good effect on prices, and though Messrs. Foy, Morgan, & Co. cannot report any decided advance with the new year, yet they can be congratulated upon having secured quite as good prices for their clients as have hitherto been obtained for similar goods.

Till after stocktaking we do not anticipate any active buying, and we look at the result of the first sale of the year as rather favorable than otherwise, notwithstanding the apathy that pervaded the room on Wednesday. When we observe broad, pine deals off deck like those ex Dentholme, fetching £28 15s. per Petersburg standard, and odd sizes £21 10s., we can come to no other conclusion than that the hardening tendency on all descriptions of Canadian deals recently observable has been fully established. The deals in the special parcel above referred to were more or less sea damaged, and rejected in consequence by the importer. It is not usual to put goods of this valuable description on deck, and there was every justification for the rejection even had they been ever slightly damaged by the sea water, which in the biggest ship afloat it is impossible to avoid. Judging by

the high prices the deals in question fetched, had they been stowed under deck in the usual way £35 would probably have been their selling value.

The 1st Onega deals ex Mars at £16 10s. were also quite as favorably dealt with, as the past season's record for prices for similar goods shows. It is of course not the paying figure that holders of such goods would like to see, especially in view of the great scarcity of White Sea deals now in the market, and this will apply to most of the prices realized, which are not as good as could be wished, though quite up to expectations. Some of the Petersburg best yellow went very cheap, but the yards are well supplied, and only for leading brands fully up to description were prices at all in harmony with the other highclass shipments.

For the only really first class parcel of 11 in. that was submitted £13 15s. and £14 were obtained, and though the bidding hung fire somewhat at starting, it was soon evident when once it had commenced that there was plenty desirous of securing the goods; deals were stationary at £11 15s., a somewhat poor price to begin the year with. Best white from Petersburg were in fair request, £10 15s. being paid for planks and £8 for plank ends by one of the shrewdest buyers in the room. There are such a great variety of marks on deals shipped from the one stock at Petersburg that it would be very difficult to draw any distinction from description as to what represents a good class deal, if we go outside the long estdblished and well known brands. Some such deals there were in Wednesday's sale, called first quality, that probably fetched their full value when knocked down at £10 15s.

Though it would be misleading to pronounce any decided rise, yet one could not be long in saleroom without observing that there was a more general air of confidence amongst those assembled than has been usually witnessed.

The pitch pine disposed of in Wednesday's auction seemed to show a flat market, but there was no lack of bidders; and although the competition did not elevate values much, it was so far valuable that it keep them from sinking.

Considerable parcels of lathwood were sold without reserve at poor prices, but the wood was very inferior, we understand; something of this was to be expected, as for fresh wood the market has been hardening for some months past.

## LIVERPOOL.

The *Timber Trades Journal* of Jan. 10th says:—The first week of the year has been very much like the last ones of the past one, dull, languid, and without a spark of animation. Perhaps it may yet be too early to expect any show of animation, though in these times of fierce competition little useful time is spent in holidays, though if there be, it is unusually prolonged after Christmas.

The tone of the market will, however, be felt by the auction sales which are already announced to take place during the end of this week, and will be of interest to those engaged not only in the mahogany and other hardwood trades, but also to the general dealers in other descriptions of timber both hewn and sawn.

Further public sales are also projected, and the precise dates will be known by advertisement in a few days.

The Mersey Docks and Harbour Board through their brokers, Messrs. Duncan, Ewing & Co., have invited tenders for the supply of 25,000 cubic feet of hewn pitch pine and 10,000 cubic feet sawn pitch pine for delivery in their new North Dock yard at the Carriers' Dock. These premises have recently been acquired by private negotiations from the liquidators of the British Timber Company, and the board have for some time past been engaged in transferring some portion of their stock from their mills and yards at their North Dock establishment.

The acquisition of this property, with all its fine range of offices, sheds, workshops, and yards, appears in every way to be a wise action on the part of the Dock Board, as it will not only be close to all the great northern range of docks, but within a moderate distance from the more central ones. But what is most important is that they will still be in immediate proximity to the centre of the timber trade, so that their purchases will be made on the best possible terms by avoiding any great amount of expense in transport.

### A Legal Case Settled.

The heavy case of Petrie v. the Guelph Lumber Company has been decided by the Court of Appeal in favor of the defendants, and dismissing the appeal from Mr. Justice Ferguson. The plaintiff, Mr. Alexander B. Petrie, sued the Guelph Lumber Company, George McLean, Donald Guthrie, John Hogg, and George Douglas Ferguson, to recover back $1,000 paid by him for a share in the company's stock, and to have his name struck off the list of shareholders. The ground of his action was fraudulent representations and concealments by the defendants through a printed prospectus, whereby he was induced to subscribe for the stock. The Court of Appeal unanimously held against the plaintiff and dismissed the appeal. The two actions of a similar kind brought by Messrs. Inglis and Stewart shared the same fate. Messrs. McCarthy, Q. C., and T. S. Plumb for the appeal; and Messrs. C. Robinson, Q. C., and W. Cassels, Q. C., against it.

### Spring Timber Charters.

QUEBEC, Jan. 27.—A private letter received here from London by the last mail says that about ten vessels have already been fixed from Quebec to the United Kingdom at 20s. timber, one-third hardwood, remainder white pine, and 55s. deals; for all bright deals 50s. is offered, but chartering had not commenced in earnest yet.

**Human Calves.**

An exchange says:—"Nine-tenths of the unhappy marriages result from human calves being allowed to run at large in society pastures." Nine-tenths of the chronic or lingering diseases of to-day originate in impure blood, liver complaint or billiousness, resulting in scrofula, consumption (which is but scrofula of the lungs), sores ulcers, skin diseases and kindred affections. Dr. Pierces's "Golden Medical Discovery" cures all these. Of Druggists.

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Dec. 31st, 1883 and 1884, and also the Consumption for the month of Dec. 1883 and 1884:—

| | *Stock, Dec. 31st. 1884.* | *Stock, Dec. 31st. 1883.* | *Consumption for the month of Dec. 1884.* | *Consumption for the month of Dec. 1883.* |
|---|---|---|---|---|
| Quebec Square Pine | 296,000 ft. | 459,000 ft. | 66,000 ft. | 256,000 ft. |
| " Waney Board | 378,000 " | 349,000 " | | |
| St. John Pine | 21,000 " | 30,000 " | 4,000 " | 24,000 " |
| Other Ports Pine | 66,000 " | 90,000 " | 10,000 " | 4,000 " |
| Red Pine | 54,000 " | 60,000 " | 3,000 " | 4,000 " |
| Pitch Pine, hewn | 521,000 " | 305,000 " | 41,000 " | 54,000 " |
| " Sawn | 297,000 " | 480,000 " | 94,000 " | 102,000 " |
| Planks | 44,000 " | 50,000 " | 15,000 " | 21,000 " |
| Dantzic, &c., Fir | 51,000 " | 135,000 " | 8,000 " | 10,000 " |
| Sweden and Norway Fir | 60,000 " | 81,000 " | 3,000 " | 29,000 " |
| Oak, Canadian and American | 239,000 " | 330,000 " | 38,000 " | 44,000 " |
| " Planks | 179,000 " | 182,000 " | 35,000 " | 84,000 " |
| " Baltic | 9,000 " | 13,000 " | 0,000 " | 8,000 " |
| Elm | 15,000 " | 22,000 " | 7,000 " | 4,000 " |
| Ash | 40,000 " | 24,000 " | 1,000 " | 4,000 " |
| Birch | 70,000 " | 91,000 " | 38,000 " | 63,000 " |
| East India Teak | 13,000 " | 49,000 " | 22,000 " | 9,000 " |
| Greenheart | 50,000 " | 109,000 " | 11,000 " | 3,000 " |
| N. B. & N. S. Spruce Deals | 25,307 stds. | 22,626 stds. | 4,130 stds. | 5,581 stds. |
| " Pine | 1,083 " | 1,375 " | | |
| Quebec Pine & Spruce Deals | 5,820 " | 8,459 " | 1,930 " | 2,079 " |
| Baltic Red Deals, &c. | 3,560 " | 5,005 " | 401 " | 200 " |
| Baltic Boards | 61 " | 105 " | 00 " | 158 " |
| " prepared Flooring | 2,997 " | 3,961 " | 682 " | 121 " |

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CHAS. M. WHITLAW, Manager. MONTREAL.

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

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ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.

Montreal Saw Works
CHAS. M. WHITLAW MANAGER
OFFICE ST. PAUL STREET
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Catalogues and Price Lists furnished on application.

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PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

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***Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.***

PATENT LONGITUDINAL RIB CANOE.

THE ONTARIO CANOE

THE JUNIPER CANOE.

***Gold Medal, London Fisheries Exhibition, 1883.***

J. Z. ROGERS,
President and Managing Director

Send cent Stamp for Illustrated Catalogue.

**Canoes for Lumbermen,** designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

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A GOLD MEDAL awarded at the Ottawa Exhibition, 1884, for Fine Display

—OF—

LEATHER Belting.

SILVER MEDAL at Montreal, 1884

SILVER MEDAL at St. John, N.B., 1883.

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***Factory and Warerooms :—2518, 2520 and 2522, Notre Dame Street.***

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MANUFACTURER OF AND DEALER IN

Tarred Felt, Roofing Pitch, Sheathing and Building Papers, Carpet and Rosined Waterproof Paper, Ready Roofing, &c. ☞All orders promptly attended to at LOW PRICES.

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# LUMBERMEN'S TENTS

*The Cheapest and Best in the Market!*

32 First Prizes AND 6 MEDALS.

AT HALIFAX AND TORONTO, *1883.*

Tents, Flags, Tarpaulins, Waterproof Goods, Camp Furniture, etc., etc.

***Estimates for Circus Tents, Range Marquees, Hand-made Sails, etc., furnished on application. Liberal Discount to Large Buyers.***

## PORTABLE CANVAS BOATS MADE TO ORDER

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SEE OUR NOVELTIES IN Camp Furniture!

**At Toronto, Ont., and St. John, N.B., we made the best Display of Tents ever shown in Canada—and we never substitute an article inferior to sample in filling orders.**

**We control "THE LATOUR PAT." for Camp Furniture, the best on earth. The onty Gold Medal ever given for this class of goods was awarded to the Latour Camp Furniture at Toronto in 1882.**

## SAIL-MAKING.

**We have secured the services of the best practical sail-maker in Canada. Orders in this line will receive prompt and satisfactory attention, as is usual with all orders entrusted to us.**

**Agency for the WILDERMUTH BED SPRING, the best in the Market.**

A. G. FORGIE, MANAGER,

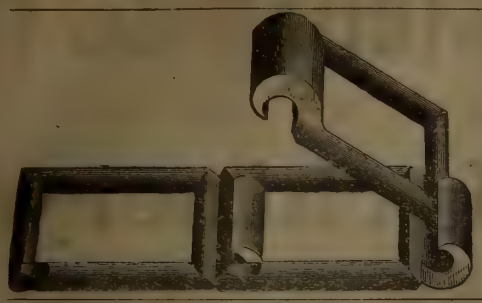
# International Tent & Awning Co.,

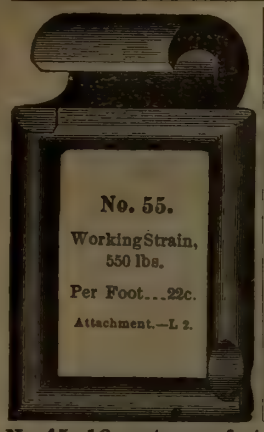
***184 SPARKS STREET, OTTAWA.***

3414

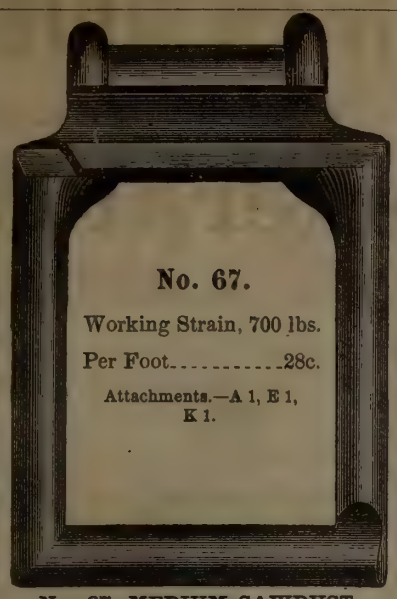
# EWART'S PATENT LINK BELTING

For CONVEYING, ELEVATING, and TRANSFERRING every Product of a Saw Mill, into, through and out of the mill.

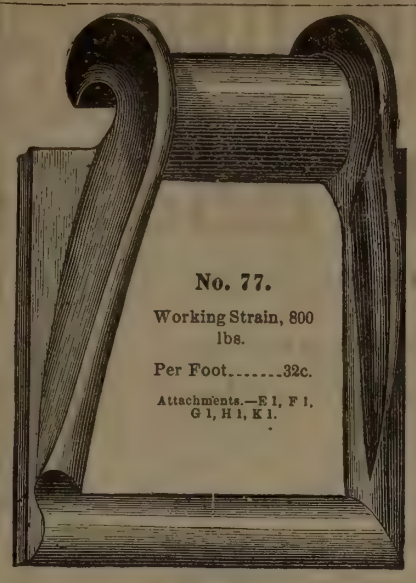




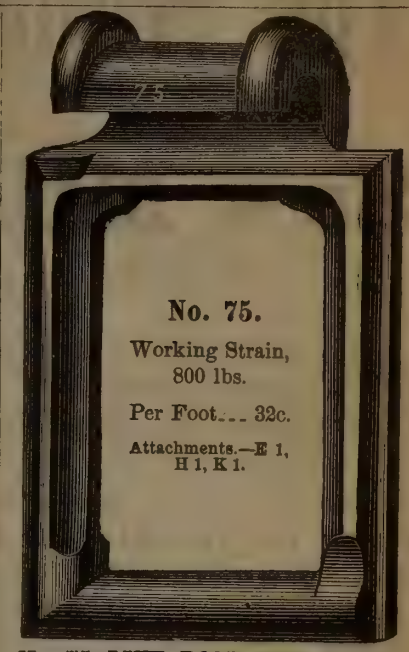
No. 45—16 cents per foot and 55 used for light Sawdust Conveyors.



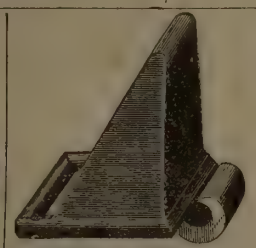

No. 67—MEDIUM SAWDUST CONVEYOR CHAIN.




No. 77—CONVEYOR AND LIVE ROLL CHAIN.

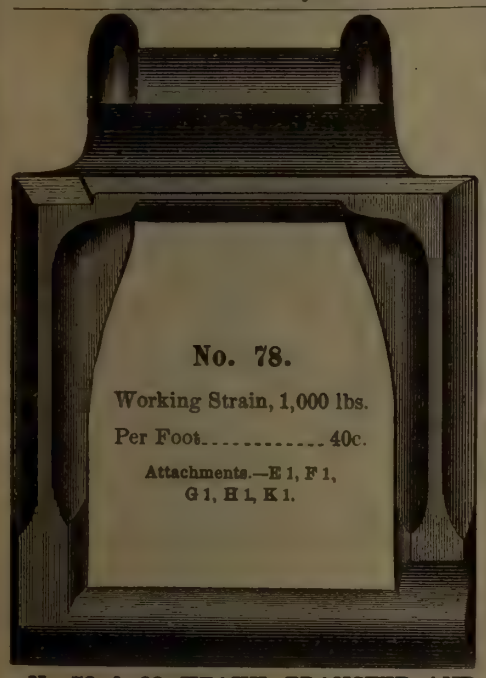



No. 75—LIVE ROLL AND DOUBLE STRAND ELEVATORS.




# GIANT CHAIN for Log Haulups

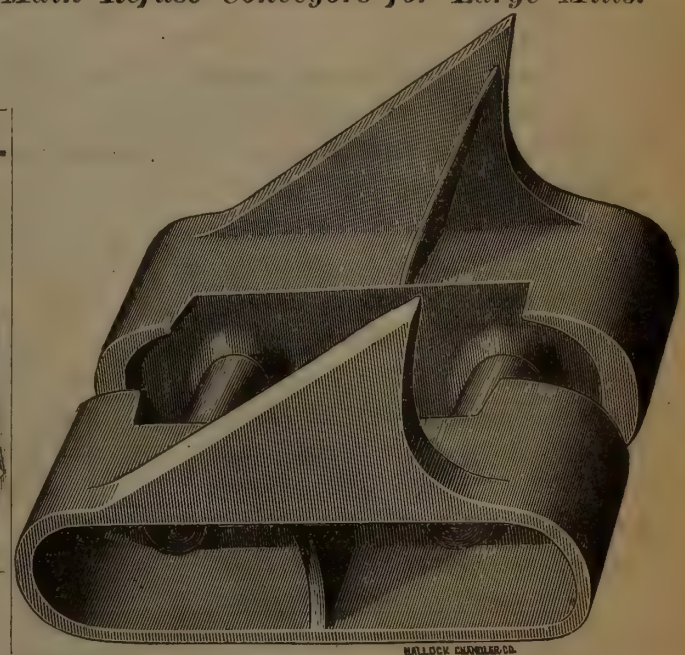
*And Main Refuse Conveyors for Large Mills.*




No. 78 & 88—HEAVY TRANSFER AND LIVE ROLL CHAIN.

## KNIGHT'S PATENT SAW MILL DOG.

One of the Best Log and Board Dogs made.

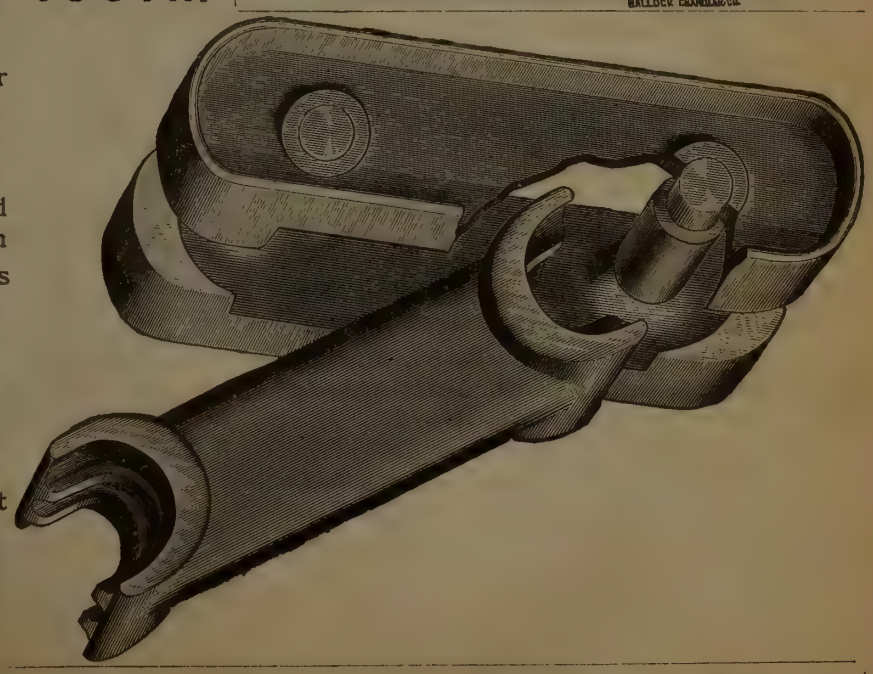


## LOG TOOTH.

No strain or wear on Rivets.

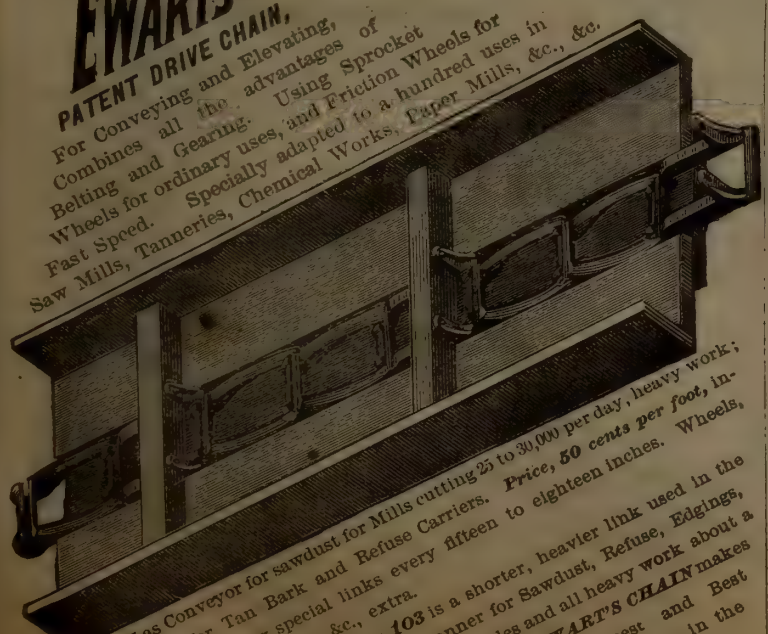
Easily Repaired if broken all links being Interchangeable.

Special Prices for Giant Chain during next 60 Days.



## EWARTS PATENT DRIVE CHAIN,

For Conveying and Elevating, Combines all the advantages of Belting and Gearing. Using Sprocket Wheels for ordinary uses, and Friction Wheels for Fast Speed. Specially adapted to a hundred uses in Saw Mills, Tanneries, Chemical Works, Paper Mills, &c., &c.



*Number 85* as Conveyor for sawdust for Mills cutting 25 to 30,000 per day, heavy work; also for Tan Bark and Refuse Carriers. *Price, 50 cents per foot,* including special links every fifteen to eighteen inches. Wheels, Shafts, &c., extra.

*Number 103* is a shorter, heavier link used in the same manner for Sawdust, Refuse, Edgings, Slash Tables and all heavy work about a sawmill. *EWART'S CHAIN* makes the Cheapest and Best Conveyor in the World.

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THE WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA,

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# Waterous Engine Works Co'y,

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# The William Hamilton Manufacturing Co'y

(LIMITED,)

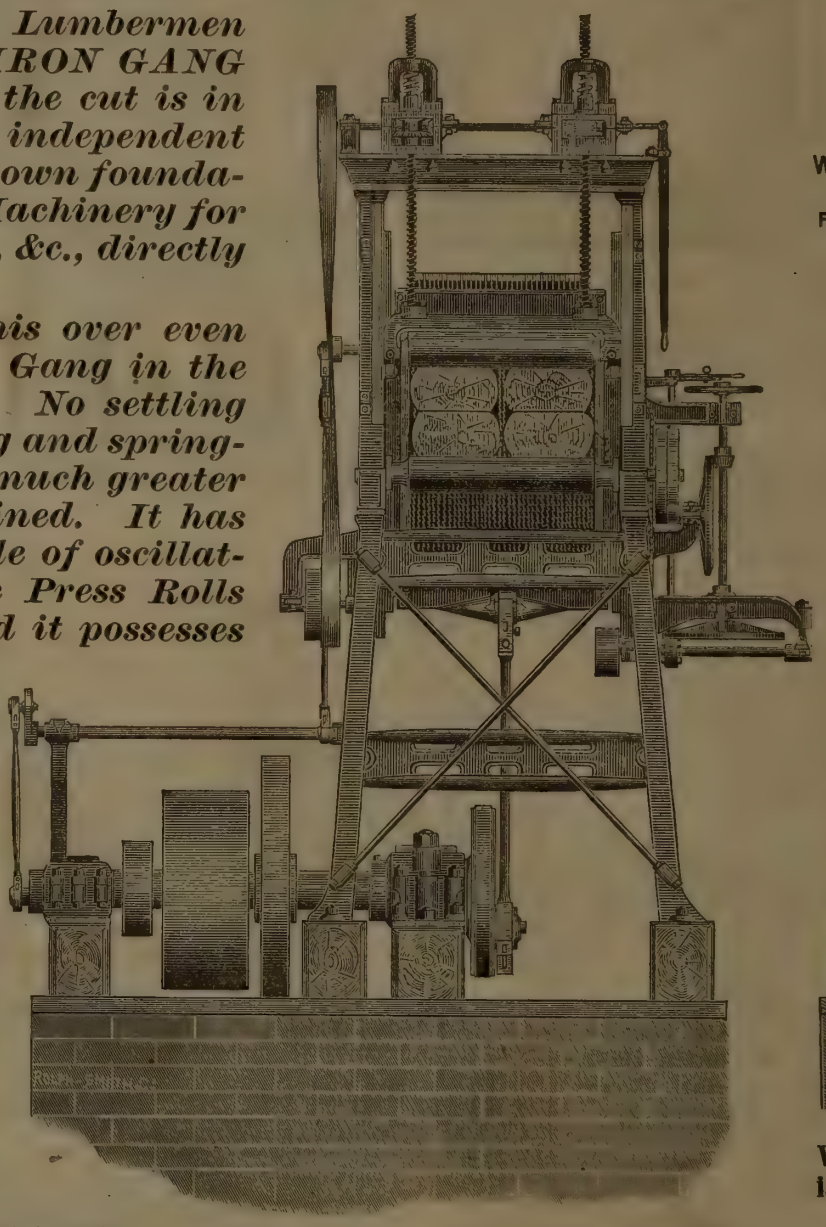
MANUFACTURERS OF

# Saw Mills and General Machinery

PETERBOROUGH, - ONTARIO.

***We introduce to the Lumbermen of Canada, our New IRON GANG which will be seen by the cut is in itself a complete and independent Machine, resting on its own foundations, having all the Machinery for operating, feeding, &c., &c., directly attached.***

***The advantage of this over even a well built ordinary Gang in the mill frame is evident. No settling out of line, no yielding and springing of timber, while a much greater working speed is obtained. It has the most improved style of oscillating motion, it has the Press Rolls operated by power, and it possesses generally all the good features of best American Gangs, with heavier frame work, and heavier shafting, all with a view to rapid, steady & correct working. A good look at one of these massive machines satisfies the sawmill man that they are in every way capable of continuously performing heavy duty throughout the season.***



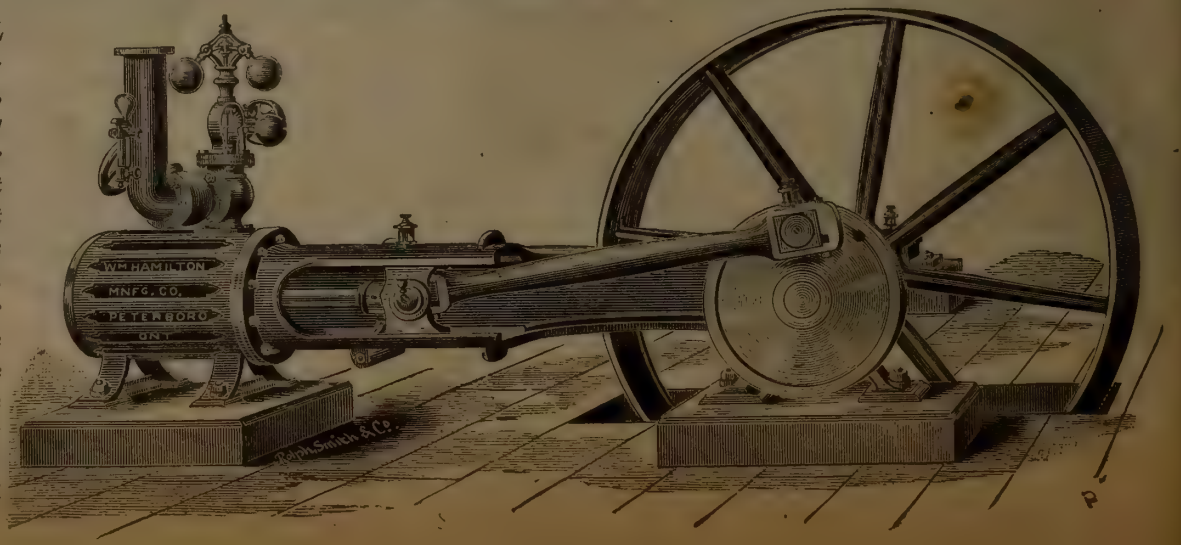
**We make these GANGS one of our Specialties, and manufacture different sizes.**

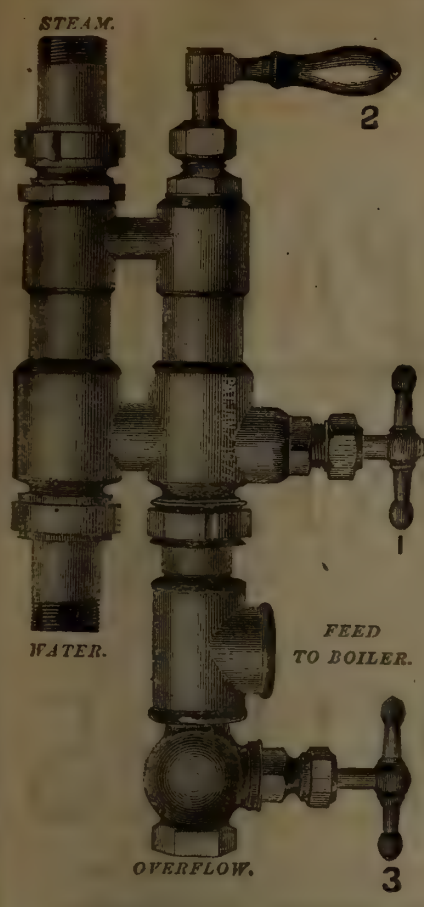
*The Wm. Hamilton Manufacturing Company, Limited, Peterborough,* SERPENT RIVER, September 28, 1884.

GENTS,—We are doing big work with the Mill. We recently cut 122 thousand feet of inch Lumber in one day, with the Gang and Large Circular, without any crowding whatever. We are making a steady average of from 90 to 100 thousandfeet per day. I cannot say what amount the Gang is really capable of cutting, as we have not yet been able to stock it to run it at its full capacity. I can, conscientiously recommend the Gang as the best built in Canada. I remain, yours truly, (Signed) WM. THOMPSON, Mill Manager for COOK BROS.

## Also, ENGINES and BOILERS.

***This cut represents our SAW MILL ENGINE, of which we make the following our Standard sizes, 12x16, 16x20, 18x24, 20x24, and 24x30, built Strong and Substantial for Heavy Work. The Piston Rod, Cross-head Pin, and Wrist Pin, are made heavy and of the best steel; the Connecting Rod has solid ends and is tightened up by screw and wedge, avoiding all danger of keys getting out; the Slide Valve has a simple balance valve, requiring no attention from the Engineer, as it is self-adjusting. The Engine Shaft and Fly Wheel made very heavy. Belt Pulleys put on when required in place of Fly Wheel, and all egulated by the Judson Governor.***






# The Hancock Inspirator

**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

## Over 70,000 Now in Use.

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MANUFACTURER OF

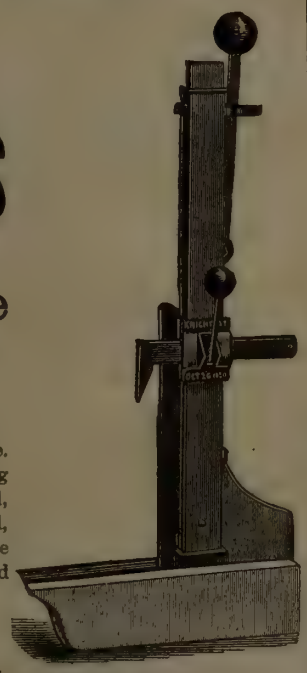
KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

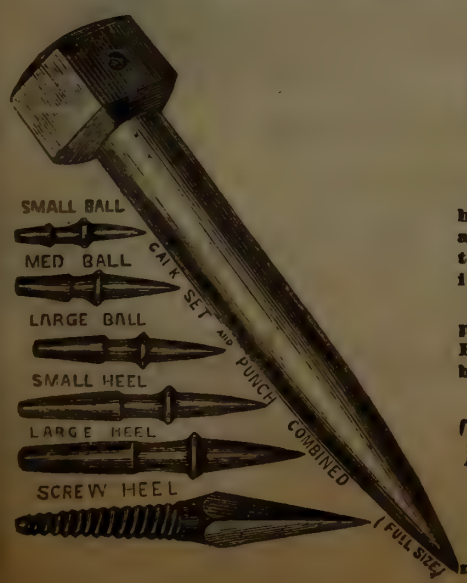
## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Mfilldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Cants cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



Manufactured by HUGH GIBSON, CHATHAM. EXCELSIOR DOG.

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# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

*ST. JOHN, N.B.*

**Samples and Price Lists sent by mail on application.** L2

# National Manufacturing Co.

160 Sparks Street,

OTTAWA, ONT.

## STILL RETAINS THE LEAD

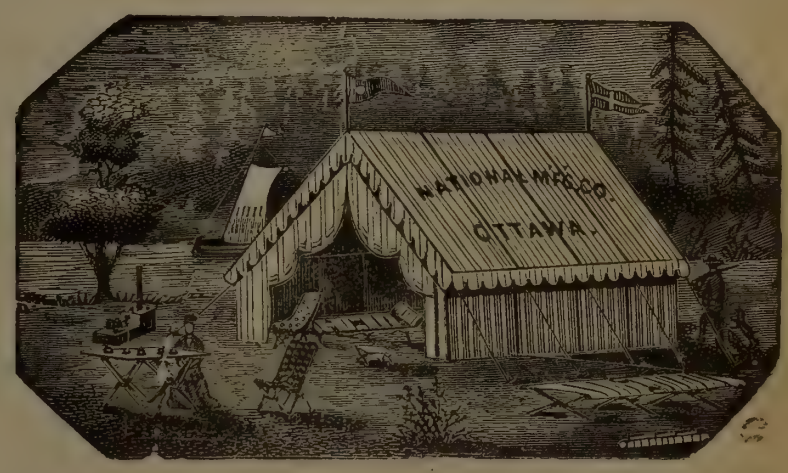
Have been awarded every Medal ever offered at Exhibitions in Canada for our Lines of Goods, notwitstanding the misleading advertisements of unscrupulous firms claiming awards, medals, &c., which they have never received. See letter from H. J. HILL, Esq., Secretary Toronto Industrial Exhibition Association, below. This year at Toronto, Montreal and Ottawa Exhibitions, we have been awarded

10—MEDALS—10

—FOR—

# TENTS, MARQUEES,

*And CAMP FURNITURE.*

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***And other large buyers, offered Special Inducements.***

New Illustrated and Descriptive Catalogue mailed on application.

OUR LINES OF

Tents, Flags, Tarpaulins and Camp Furniture, Shanty and Horse Blankets

Are without Doubt the BEST and CHEAPEST in the Market.

## National Manufacturing o. 160 Sparks St. Ottawa

P. O. BOX 345.

OFFICE OF THE INDUSTRIAL EXHIBITION ASSOCIATION,
TORONTO, MARCH 10, 1884.

*The National Manufacturing Co'y, Ottawa:*

GENTLEMEN,—In reply to your enquiry, I beg to say that the highest awards made at the Industrial Exhibition for the years 1881, 1882, and 1883, for Tents, Marquees and Flags, were to your Company, being a Silver Medal for each year. Last year, 1883, was the first in which a medal was specially offered for Camp Furniture and Equipages, and it was awarded to the National Manufacturing Co'y, of Ottawa.

I am, your respectfully,
H J. HILL, Manager and Secretary.

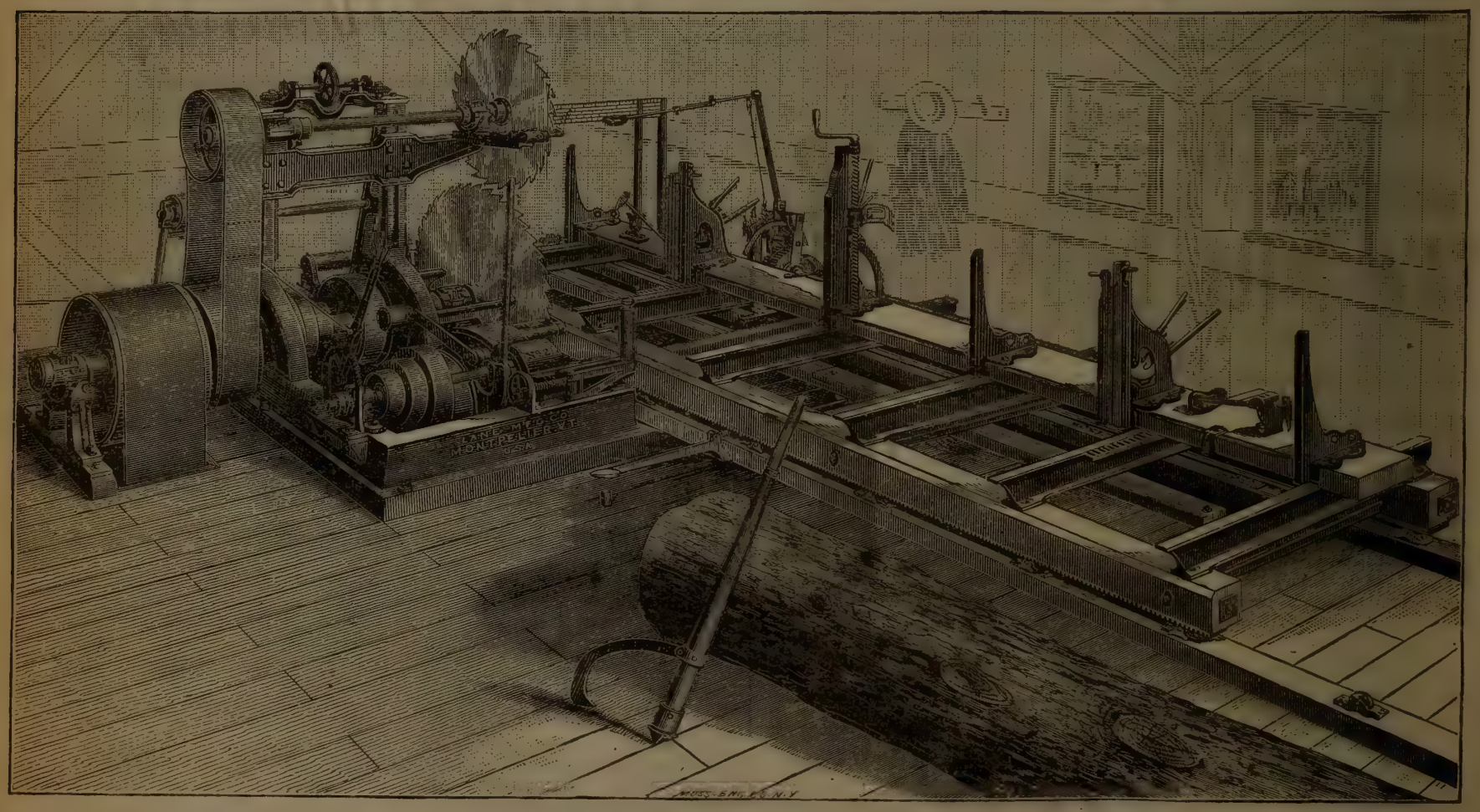
6mL20

# THE LANE MANUFACTURING COMPANY!

## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS



Circular Saw Mills,
Saw Mill Set Works,
Double and Single Traveling Bed Planers, Shingle Bolters,
Bed Timber Planers,

Clapboard Machines,
Clapboard Planers,
Stationery Bed or Roll Feed Planers,
Drag Saw Rigs,

Shingle Machines,
Lath Machines,
Double and Single Power Feed Edgers,
Mill Supplies, Etc., Etc.

FOR DESCRIPTIVE CIRCULARS AND PRICE LISTS, ADDRESS:

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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., FEBRUARY 16, 1885. NO. 4.

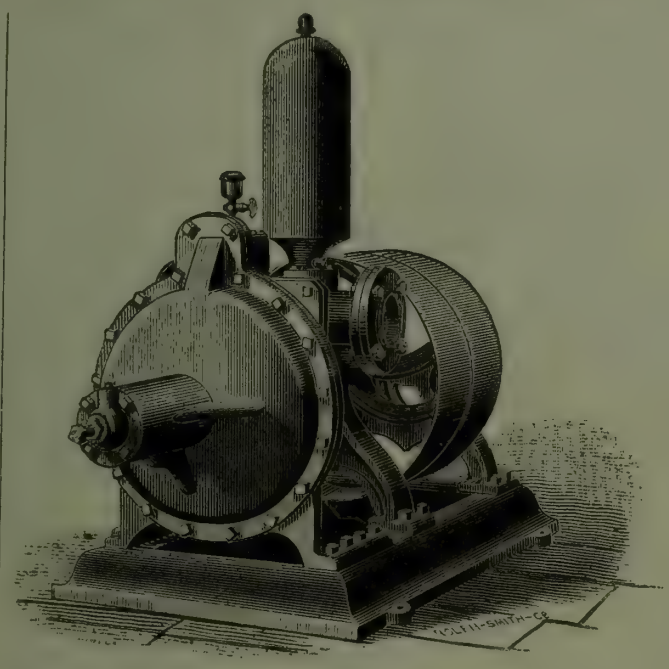


Central Iron Works

SIMCOE STREET

PETERBOROUGH, Ontario.

WM. H. LAW, PROP'R.



PROTECTION FROM FIRE

An Improved Rotary Piston Force Pump.

| No. | Diameter of Pipes. | | No. of Revolutions. | Capacity per minute at table speed. | Price. |
|---|---|---|---|---|---|
| | Suction. | Discharge. | | | |
| 2 | 2½ in. | 2 inch. | 250 | 125 | $100 |
| 3 | 4 " | 3 " | 250 | 250 | 150 |
| 4 | 5 " | 4 " | 250 | 400 | 225 |

SEND FOR CIRCULAR.

MANUFACTURER OF

Engines, Boilers, Pumps, Saw Mill Machinery

STEAMBOAT PROPELLERS AND ENGINES.

CASTINGS

For Architectural Works &c.

IRON ROOFING AND BRIDGES,

AND ENGINEERING WORK IN GENERAL.

LUMBERMEN'S PRINTING AND STATIONERY.

*We can supply anything in the line of BOOKS, BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices, and everything necessary to a complete office outfit.*

*All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.*

*BOOK-BINDING of every description got up in a Neat and Superior manner.*

*ACCOUNT BOOKS Ruled and Bound to any desired pattern.*

Address: "THE CANADA LUMBERMAN," Peterborough, Ont.

# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

**VOL. 5. PETERBOROUGH, ONT., FEBRUARY 16, 1885. NO. 4.**


## WOOD AND WOOKING INDUSTRIES OF NEW BRUNSWICK.

We continue the account of the "Woods and Wood-Working Industries of New Brunswick," from Hamilton's Handbook of that Province, a portion of which was given in our last issue :—

In order to give some idea of the magnitude of trade even in the smallest of wooden ware articles, we make the following extract from some comments in *All the Year Round* for May, 1884 :—

"Who would expect to find in the cargo of one of the magnificent New York liners three thousand boxes of clothes pegs? Yet such an entry is common enough. "Bless my soul!" somebody will say, just as I did when I noticed it, "are we dependent on the States for such things?" Pursuing my investigations further, I found that this was only one out of many of the same kind. It is evident, therefore, that it pays to cut down timber, convert it into the manufactured article, pay carriage to a port, shipping charges, freight, landing charges, carriage to inland towns anywhere in England, commission to several—a score, for anything I know—intermediaries, in order that the British mater-familias may buy a dozen clothes-pegs for three half pence, which is what my wife tells me she paid last. I never saw the boxes as imported, but I should imagine they would be large, and hold several hundreds each—thousands, may be.

"Does not this give us an idea of the enormous quantity that must be turned out every year in the States? Just fancy what a lot must be consumed by fifty millions of people. Yet they are able to supply, not only their internal demand, but to send them to us by the million. Likely enough they will send them as well to some other European countries, though the demand there will not be so great as here, if only from the fact that the weekly wash is not such a national institution.

"One cannot help thinking what has been, is, and will be, the effect of this large importation on the home made article. If my recollection is to be trusted, the present clothes-peg did not make its appearance here till some twenty or twenty five years ago. Everybody who can look back so far can remember that the clothes peg to which he was accustomed was evidently a piece of a branch peeled, shaped, cut in two, and then bound together with two or three inches of tin, which were fastened by a bit of wire driven in. Such was what I may term the pre-American, or the antique clothes-peg.

"I cannot assert with confidence that this ancient style has disappeared, for I confess that I do not keep my eyes open purposely to study clothes-pegs. But this much may be allowed; the antique is not prominent; possibly it yet lingers in out-of-the-way and old fashioned places. In the centres of civilization, however, it is conspicuous by its absence, its place seems to be taken by the modern article. This, as is well known, is all in a piece, and might be pronounced artistic, were it not evidently made in a machine, and therefore, according to Ruskin, an utter obomination."

To show that the manufacturers of the United States are becoming anxious about the supply of raw material, we may quote the following from one of their leading organs :

"The great pine forests of Michigan, Wisconsin and Minnesota are beginning to show the signs of exhaustion. There is a shortage of production this year in those States footing up about 600,000,000 feet. The average of first quality lumber has run down from 12 per cent. ten years ago to 2 per cent. last year, showing the rapid deterioration of stock which is brought to the mills. The quality of the logs is much poorer than ever before, as many have been put in from land once cut over, and now land has been cleared of everything that will make a cull board. The improvident lumbermen, who in the past only cut the choice pine and left the remainder to be devasted by fire, now saws down his trees close to the root to save an axe kerf, scrapes the earth with a fine tooth rake to get every log that will make passable mill culls, and will discharge a foreman who leaves on the ground a log six inches in diameter."

That our neighbors are looking with envious eyes to our bountiful supplies of forests, may be gathered from the following article, taken from a leading daily paper published in New York city. In calling for free lumber, and while opposing tariff reduction, it says :—

"The only justification for any further attempts at tariff legislation by the present Congress is, that it will afford a last chance to consider this year the removal of the duty now collected upon important lumber. The importance of this measure cannot be urged too often upon the attention of Congress; too much cannot be said about the actual condition of all the northern forests of the United States. They are perishing rapidly, and, to some extent, needlessly. The collection of the duty upon lumber manufactured in Canada stimulates the destruction of the forests of the United States, while it yields practically nothing to the revenues of the country. For every dollar paid into the public treasury, on account of this duty, $25 are taken from the pockets of American consumers of American lumber, and paid to the few hundred men who manufacture pine and spruce lumber, or deal in pine lands. Every dollar thus obtained by the treasury costs the country, moreover, an incalcuable sum through the unnecessary and wanton destruction of forests which, were this duty repealed, would be allowed to grow and improve.

"The continuation of this duty means a great and unnecessary commercial upheaving such as this country has never seen. Congress can prevent, or at least postpone for a considerable period, these calamities by the removal of this duty. The necessity for doing this is urgent. Action cannot safely be delayed a single day longer. The extermination of the northern forests of the United States should be postponed at any cost."

Following upon this we may quote some comments of the Canadian press, to show what our manufacturers think of the situation, which will demonstrate that fear of exhausting the supply does not form an important item for their consideration at the present time.

The *Monetary Times*, of Toronto, says :—

"Canada has been called 'a wooden country.' How far this is properly a term of reproach we cannot say; but seeing that wood, in the raw stage of squared logs or lumber, forms $25,000,000 worth, or say a fourth in value of our yearly exports, and that we send abroad a considerable aggregate of manufactures of wood besides, we may well bear the nick-name. Let us, however, eschew such wooden goods as wooden nutmegs or hams. We ship to Europe, already, tool-handles, broom-handles, carriage spokes, hubs and felloes, spools or bobbins, brush-backs, &c., &c., in considerable quantity. We might do more in the way of wooden-ware export, and indeed it seems to us that, in this as in other lines, Canadian manufacturers will have to look about them for foreign markets, since the means of production, over-stimulated as they have been, are outstripping the home demand."

The *Times* continues :—

"But here are the facts: Great Britain and other European countries use enormous quantities of wooden goods, and they are largely made in the United States and shipped from Boston and New York. Why should not Canada, whose supplies of timber are nearer the seaboard, compete successfully? It can be done; but it is not to be done in a day. Nor is it to be done without observation and pains."

The St. John *Daily Telegraph* says, after enumerating a long list of wooden wares that should be manufactured here :—

"We have not exaggerated the importance of cultivating the English market for our manufactured wood goods. Enough has already been demonstrated to justify us in urging upon men of capital that they ought to take hold of the matter, and that they can do so with a good prospect of success. If some portion of the hundreds of thousands of dollars now lying in the banks were invested in the wooden ware business, it would be a good thing for the Province. Heretofore the Province has confined itself to shipping deals and timber, the market for which fluctuates with the building trade; but in some of the lines to which reference is made above there is a constant demand. Many of the articles are such as are in every day use in families, and people buy them whether times are good or bad. The business is capable of vast development, and it is to be hoped that some of our moneyed people will see their way clear to engaging in it."

The St. John *Daily Sun* says :—

"From time to time the *Sun* has called attention to the extensive trade done by American manufacturers of wooden wares with Great Britain and the Continent, as indicative of what might be accomplished by the wood workers of New Brunswick were they to intelligently turn their energies in this direction. The special superiority of our climate (the enervating summer heat of the interior of the Continent being unknown in St. John), the cheapness of fuel, the proximity of exhaustless supplies of forest woods, the direct communication all the year round with the mother country, are factors which place us in a position to compete on the most favorable terms with all rivals, either across the line or in the Upper Provinces; while a point of vital interest to capitalists is found in the unlimited demand for wood manufactures in Great Britain, and the extent and variety of the articles required, which guard against the possibility of overproduction or excessive competition, thus ensuring a steady, remunerative dividend on their investments."

In urging the interests of the International Forestry Exhibition upon our manufacturers, the St. John *Daily Globe* says :—

"We hope that our Province and our enterprising manufacturers will leave nothing undone to have New Brunswick well represented at the Edinburgh International Forestry Exhibition. In markets of the Old World, like that of Liverpool, something is known of us by our square deals and our birch timber; but to show what our goods are capable of we should, to the very fullest extent, take advantage of this Forestry Exhibition. Doubtless, if persons in the old world, who are wood workers, are made aware of the capacity of our native woods for economic purposes, they would use them more than they do now."

The following list comprises the leading varieties of woods which are most plentiful in our forests and most valuable for manufacturing and export; white, red and grey oak; rock (or sugar), birdseye, curley and white maple; black, white, yellow, grey and red birch; white and red beech; red and white (or forest and interval) elm, black, white and red ash; butternut; chestnut; hornbeam (or ironwood); basswood; aspen and balsam poplars; white red and princess pine; black and white spruce; tamarac (also called larch, hacmatac or juniper); cedar and hemlock.

The uses of these are almost innumerable, but we may venture to name a limited number of the purposes they are now principally utilized for manufactories for which are established in this Province. They are as follows: Building materials for outside and inside finish; shipbuilding, from the hull to the spars; agricultural and horticultural implements; waggons, car-

riages, sleighs; packing salt, fish, and other boxes; tubs, pails, churns; step-ladders; furniture of all kinds; broom, hoe, pick, edge tool, and other handles; clothes-wringers, washboards, clothes and towel horses; bench screws; Venetian blinds and slats; cloth boards and rollers; bobbins, spools; ships' blocks; coopers' work of all kinds: boot and shoe lasts, trees and crimps; musical instruments; railway ties; carving and turned work; wood pulp. In fact the varieties of wood having the properties of elasticity, toughness and durability are such that they are adaptable to almost all purrposes where wood is required.

Having shown our readers what our woods are, and their adaptability, we will endeavor to show the splendid opening there is for the introduction of both capital and labor from the old country to develop this branch of business, and the reasons why our manufactures have not been more generally introduced in foreign markets. In the first place, the facilities for manufacturing have not been more than sufficient for home consumption. Several of our manufacturers have from time to time placed some of their surplus stock in foreign markets, but for want of proper management, and through their efforts being spasmodic rather than studied, they have not succeeded. In every case where the wants of the market have been know and the efforts of the manufacturers have been systematic, they have succeeded beyond their expectation. In every case they hold their own against all competitors, and are doing all the business they have facilities for. It having been arranged for this province to have a representative in the English market, it will give them advantages which have not previously been afforded.

It is the intention of the Agent General of the Province to devote his personal attention to this branch of trade, and the majority of the manufacturers acting with him will enable him to do so at a very trifling cost to either manufacturer, dealer or consumer. A writer in a prominent English paper recently undertook to discourage the entering of New Brunswickers into the English market, and implied that there was not room; that we could not compete, &c., and also stated we were looking forward to an unoccupied market, as if we could expect the market has been standing all these years waiting for us to supply their wants. No, we anticipate the most keen competion and are prepared for it. We have unexcelled facilities, and it is the intention of our manufacturers to so enter the market that they will hold it. Their intention is to so work together that nothing but first-class, properly seasoned material, and the best workmanship shall enter any foreign market. It will be their pride to establish a reputation such as will insure the sale of anything having the "New Brunswick" brand upon it.

In order more fully to illustrate the progress now being made in this Province, we give a short description of some representative manufactories in several branches of the wood-working industries. First in importance from location, facilities and variety of manufactures, we may mention the Quaco Wood Company, of Henry's Lake, St. John County, N. B.

Under the management of Messrs. Guy, Bevan & Co., of St. John, N. B., and London, England, this Company have the advantage of the guidance of one of our oldest and most practically experienced mill-owners and timber and lumber exporters. Having ample capital for the requirements of their trade, they are developing a branch of manufacture which is destined to be of vast importance to the Province. They are now largely supplying local consumption as well as exporting considerable quantities of their manufactures to the United States and European markets. The works being situated upon the margin of a large body of water, the banks of which are lined with forests of beech, birch, maple, and other valuable woods, renders the raw material most accessible, and storing and seasoning easily accomplished. The large resources of the company enables them to hold ample stocks of timber for seasoning, and assures there always being prepared to fill large orders upon short notice. It also enables them to operate their works both winter and summer. For the more thorough seasoning of the wood a large dry house or kiln has been erected, where all such material as requires it is subjected to artificial heat after the most approved method, thus insuring the use of the most durable and properly cured material.

Another advantage peculiar to the woods used by the Company is their growth upon the hills and mountain sides, which gives them a much closer grain and harder texture than those grown upon low lands.

Their facilities for shipment of their manufactures are excellent. The St. Martins and Upham Railway Company have a depot in the grounds of the company, affording direct communication with the excellent harbor at St. Martins, some six miles distant, also with St. John (45 miles), Halifax (278 miles), and all parts of the Continent. Another more direct line of railway is also projected, as shown upon the map, which will add materially to their facilities.

The variety of articles manufactured is such that every portion of the timber is utilized. The whole of the work being done upon the premises, from cutting up the timber to the last detail of manufacture, enables them to sell their productions at the lowest prices.

Further comment upon the prospects of this Company is unnecessary, but as a number of settlers from the old country are among the operatives in these works it may interest others to know how their countrymen are situated. The Company employ only the best class of labor, and endeavor in every way to secure the utmost comfort for their employes. A large and comfortable lodging house has been erected for the unmarried men, where the Company board them at very moderate charges. A number of pleasantly situated and commodious cottages have been built for the use of married operatives and their families. A general store, situated near the mill, is kept by the Company, and well stocked with all the necessities many of the luxuries of life, all of which are sold to workmen at very moderate prices. A large room over the store is at present utilized for holding church services regularly. A school for the children is shortly to be opened, as well as post and telegraph offices. The Superintendent of the works—Mr. H. R. Robertson, who resides near the mill—aims to make his settlement a model one. Spirituous liquors are not allowed to be brought into the village. A reading room and other means of recreation are furnished the operatives free of charge.

Next in importance we may place the "Woodstock Wood-working Company," of which William Connell, Esq., is President, and Mr. R. S. Sterratt, Treasurer and Superintendent of Works. Woodstock, Carleton County, N. B., (the headquarters of this Company), is rightly described as one of the most enterprising towns in the Province. It is specially well situated for wood-working industries, being on the banks of the St. John, and connected with all parts of the country by railway; within easy access of the harbors of St. Stephen, St. John, &c., for the export trade; while the opening of more direct railway connections via Quebec and Montreal, which will soon be completed, will make this a most important centre. It is surrounded on almost all sides by immense forests of the most valuable woods, which are accessible both by rail and water communication. Being the chief market town for one of the largest and most productive agricultural and fruit-growing districts in the Province, gives it a valuable local market for all classes of products. The wood-working company located here manufactures articles of rather a different character from those turned out by the "Quaco Company." Neither pains nor expense have been spared to fit up the factory with the very best and latest improved machinery in every department, and the assortment of manufactures in wooden wares which can be turned out in practically unlimited. Having ample capital, capable management, and being so well situated both as to ready access to raw material of all kinds and excellent facilities for reaching the best markets, this Company commands a valuable and increasing trade.

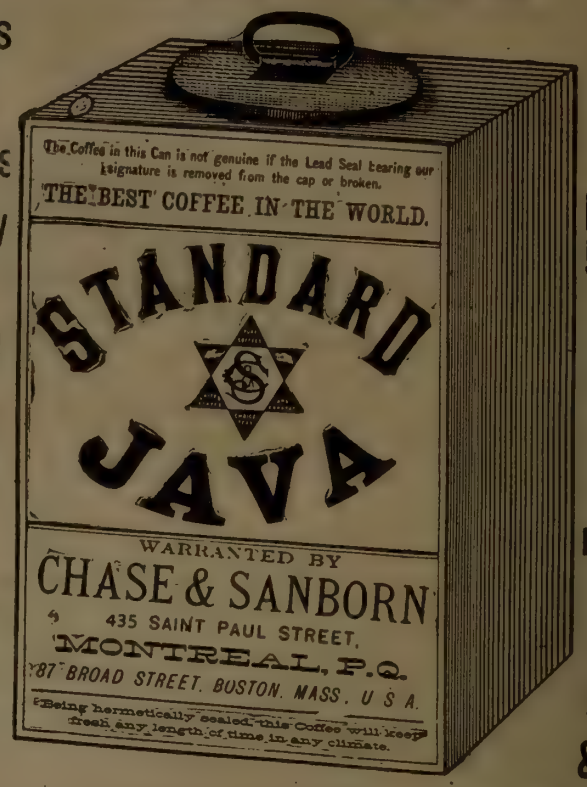
The saw mills are unsurpassed in any part of the world, and a strong evidence of this is the readiness with which they are insured against fire by all first-class insurance companies.


# CHASE & SANBORN

*Importers, Jobbers and Roasters of*

MONTREAL. **COFFEES** BOSTON.

Buy this Brand, which is the only and Original Private Plantation JAVA on the Market.




Our Coffees always put up in 50 or 25 Lb. Air-tight Tin Cans thereby retaining all the Original Strength & Aroma.

*All Coffees Packed by us Guaranteed Strictly Pure.*

*The Wholesale Grocers of Canada are our Selling Agents. Order our Coffees through them.*

12t1


There are many establishments throughout the Province whose facilities as to machinery, &c., are ample for large expansion of their business, but are hampered for want of capital to control the large stocks of raw material which they require to constantly hold on hand. Many factories now in the hands of men of known integrity, thorough knowledge of their business, good managers, offer some splendid openings for the investment of more capital where experience is not required. Outside, however, of those factories now in existence there are openings in almost every line of wood working where experience in almost every branch can be utilized most profitably, and where capital can find most safe and remunerative investment.

Wood workers in the old world would do well to consider the advantages we have here. They cannot fail to see that if they are doing well at home, with their experience they would do better here. They have the same access to the old market from here and many new ones open; much of the raw material now lost to them can be utilized; better material is at hand; climatic influences favor them in every way. The best of wood working machinery is obtainable here. Now is the time to make your choice, and you cannot find a more favorable place than the Province of New Brunswick, Dominion of Canada.

Any further information regarding the timber interests and wood working industries of the Province will be most cheerfully furnished upon application either personally or by letter to

IRA CORNWALL, JR., Agent General
for Province New Brunswick.
24 Chapel Walks, Liverpool, England.

## TEN THOUSAND ISLANDS.

In the St. Lawrence there are the Thousand Islands. Whether they fail by one or two that complete roundness of ten times one hundred I do not know. On the southern end of the Gulf state there may be seen on the map a stretch called the Ten Thousand Islands. He was a very unimaginative person, niggardly, having a dread of exaggeration, who named these wonderful islands. He skimped his nomenclature. There are not ten thousand islands. There must be a million of them, and more to spare, almost all of them covered with mangroves. To describe them were a difficult task. I may succeed, perhaps, in giving a faint idea of their number by asking the reader to think of one of those old mosiac floors the Romans delighted in. The infinite countless little bits of stone are the islands, the cement the water. Island after island appears emerging out of these blue bays. Some are but a few acres in size, then there are others with an area of several square miles. Now the channel between them is so narrow that a boat cannot pass, and then it expands to a mile wide. Beautiful silent harbors are entered, with peninsulas jutting into them, and behind comes labyrinth. It is an endless archipelago, all green and smiling. A man might hide himself here, provided he could only live, and remain uncaught forever; tracking him would be impossible. Only here and there on some of the islands is there the appearance of land, perceptible by a thin ridge. You can tell it by the hard wood growing on it. Centuries ago this island might have been on the sea front, and some storm threw up the sea-bottom. Stretching then out in every direction, these intricate islands block the way. There might be eight, ten or twenty miles to cross before the mainland would be reached, that is, if you had the wings of man-of-war bird, and could fly. In a boat, working in and out through the maze, you would have to row maybe one hundred miles, then finally you might fetch up on Florida proper.


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

# The William Hamilton Manufacturing Co'y

MANUFACTURERS OF (LIMITED,)

# SAW MILL AND GENERAL MACHINERY

## PETERBOROUGH, ONTARIO.

## Our Saw Mill Engines

***Are made strong, neat and durable, knowing well the ever varying strain they are subjected to in driving a Saw Mill.***

## IRON AND STEEL BOILERS

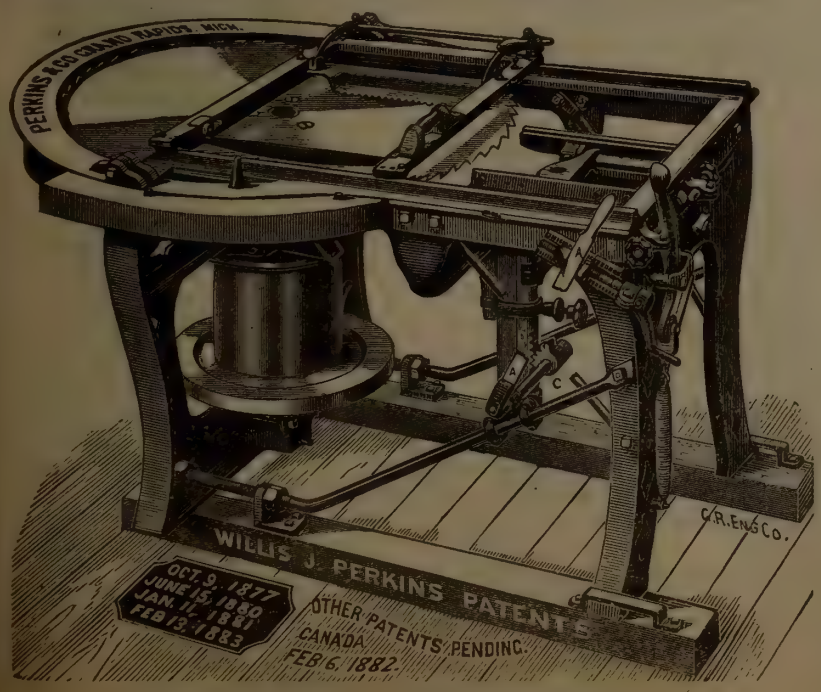
***of the Best Material and workmanship.***

We wish again to call the attention of our Canadian Lumbermen to our First Class IMPROVED SAW MILL MACHINERY, Heavy and Light Circular Mills; our Pat. Twin Circular, with Steam Rack or Rope Feed for Slabbing; Iron Oscillating Gang Mills of the most improved designs; besides our Patent Improved Long Cylinder Steam Feed. We would call attention to Cunningham's Oscillating Twin Engines for Feeding Long Carriages with Rack or Rope; our Patent Wrought Iron Jack Chain with Short Trucks; Heavy Wrought Iron Refuse and Sawdust Chains: Trimmers and Slab Cutting Tables; Lath Mills and Bolters; Lumber Markers; Trout's Patent Automatic Log Counter, to count the Logs as they come into the mill; Covel's Patent Saw Sharpener; Saw Swages and Improved Bench for Dressing and Hammering Saws; Perkins' Patent Shingle Mills; Bolters; Sappers; Jointers; Drag Saws; and Packers. We also forge a very superior ANCHOR for Lumbermen.

We are now introducing to those requiring Small Mills our IMPROVED SEMI-PORTABLE MILL, got up strong and durable, and are now adding to the many Machines for cutting Lumber. MILNE'S IMPROVED HEAVY BAND SAW for cutting Lumber out of large logs. The small carfe these Mills take out in using a No. 18 Gauge Blade, is a very important point in saving Lumber, besides the small amount of power required to drive it, making it a favourite in sawing lumber—capacity from 25 to 30 thousand per day.

We are prepared to submit plans and specifications, together with any information our many years of close application to the Saw Mill Business may have suggested to us; also when required to enter into contract for supplying the machinery and all material complete.

Communication from anyone intending to build Saw Mills solicited.




GRAND TRIUMPH!

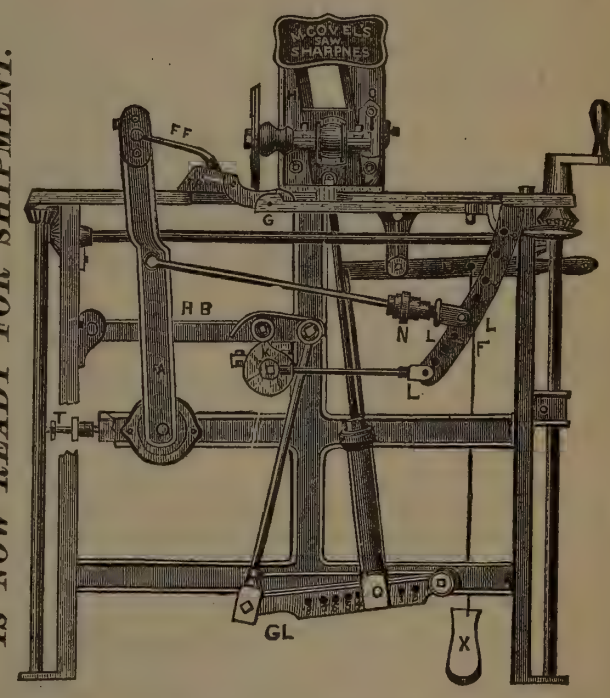
## WILLIS J. PERKIN'S DROP TILT

The only Horizontal Saw Machine on which a thick slab can be cut from the bolt. SECOND CUT ALWAYS A SHINGLE. Knots, rots, hearts, bolt squared rift-ways, and all irregularities cut off at one clip. This improvement will pay price of the whole machineevery season by increase of quality and quantity cut.

OUR SPRING STOCK OF

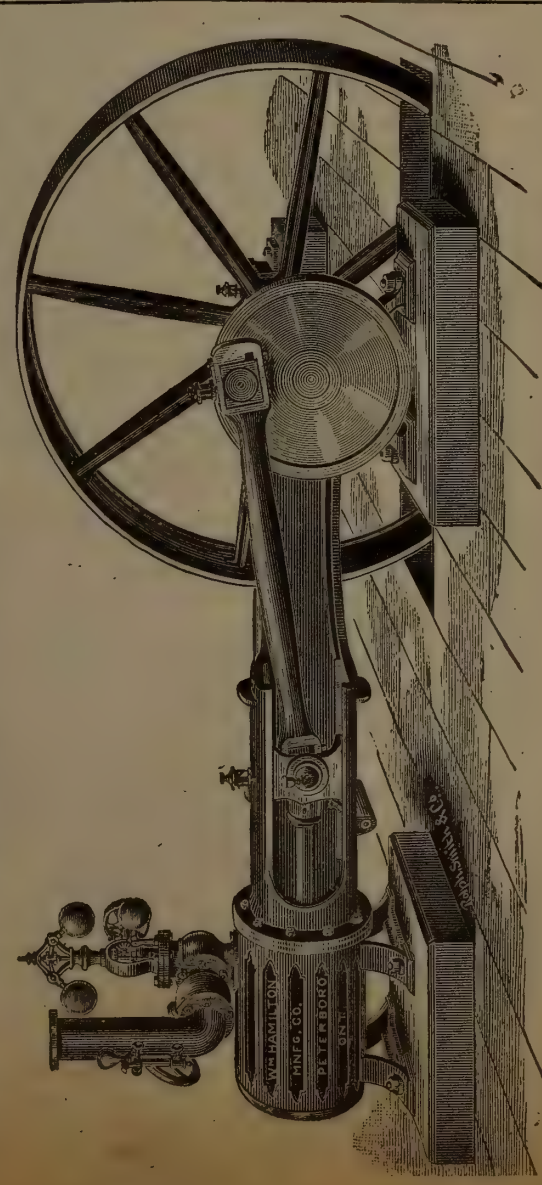
## The M. Covel Patent Saw Sharpener

*IS NOW READY FOR SHIPMENT.*




*They are now so well-known to the Lumberman, that their utility requires no comment.*

## ENGINES AND BOILERS.




*This Cut represents our SAW MILL ENGINE, of which we make the following our Standard Sizes, 12x16, 16x20, 18x24, 20x24 and 24x30, built Strong and Substantial for Heavy Work.*

## FORESTRY IN ONTARIO.

There was a good attendance at the regular weekly meeting of the Canadian Institute on Jan. 31st. The President, Prof. W. H. Ellis, M. A., occupied the chair. After routine business Mr. R. W. Phipps delivered the following address on "Forestry and its Necessity in Ontario." :—

I must beg the attention of my hearers for a short space to a subject that is not uninteresting, and is very important—the rapid and injurious deforesting of Ontario and the means whereby it can best be checked. When, not so long since, the white men came first hither, the forest wealth of all this region was immense. Could it have stood till now there would have been no difficulty in rapidly selling timber enough to build half a dozen Pacific railways had we so chosen to invest our funds. But the settlers came; they needed sustenance; they could not eat the trees; they could not sell them, and they burned them. But, unfortunately, much was uselessly burned. Much land so cleared had far better have remained uncleared till to-day. I have seen near Toronto great heaps of clear pine, worth now $40 a thousand burned to uncover poor land which gave but a crop or two, and ever since but very poor pasture. I have seen out west where great fields had been in walnut, two or three trees, left by accident, had sold for a thousand dollars, showing that the field would have sold for a hundred thousand dollars—a field which, in its whole cleared day till now has never given a thousand profit. Much land through the Province might well have been spared the axe, and yet enough been given to the field. But we cleared without method or order, each thinking the more he cleared the richer he grew, till a deadly hatred of trees seems to have pervaded the community, and their destruction was considered equally patriotic and beneficial. It is found, however, that we have been under a great mistake, and that a country will grow more grain and cattle and produce them easier when one-fourth is left in woods interspersing the rest than when all is cleared. The reason of this is evident to all who consider the structure of a tree, which I will ask you to notice. Every tree draws its nourishment from the soil near its roots. It is carried upwards by means of a large quantity of water, which passes with it to the leaves—the lungs of the tree. Here it it is exposed to the air, changes occur, the food goes to its place in trunk, branch, or leaf, the water passes off into the air. It is said one oak may thus send off 440 gallons per day. At all events the amount transpired by a tree is large —that of a forest immense. This passes upwards to the atmosphere—it is said that if it could be tinted the wood below would form no proportion in size to the vast covered columns above—and, being cool, necessarily compels precipitation on reaching a warmer strata of moist air, and rain ensues as soon as the precipitation is sufficient. The forest is the great local cause of the showers which fertilize the spring and summer fields. The next great benefit to agriculture is the reservoir they form for water. Their bed is deep, loose, porous, a mass of decayed leaves, intersecting roots, and forest soil, which holds in reserve great quantities of water (which otherwise would flow rapidly off over the fields), and feeds therewith the innumerable underground channels which keep moisture in the soil. Once we got water by digging seven or eight feet in many places; now we must go forty or fifty. As land is too much cleared the springs recede from the surface, and the process goes on, where allowed, till it becomes a desert where no blade of grass can grow. In history countries are known to have been rich and fruitful, to have been deprived of their due amount of frost; to have become sterile and be abandoned by their population; to have been sufficiently replanted, to have recovered their lost watercourses and vanished rainfall, and to have become fertile again. (Mr. Phipps gave many instances from the history of different lands—Spain, France, Germany, Palestine, India, and others bearing on this point.) The operations of nature, he said, are chiefly hidden from our view. We see the tree grow and the field yield its increase, but the actual accretion, particle by particle, so that the buds sprang forth, the leaves appeared, the blossom and the fruit followed in due season, is not within our sight. But we know that the sun gave its warming beams; that the moisture continually rose from the earth at its call, and fell again in rain, and rose and fell again. And we know when alternate heat has dried the land, and alternate shower has given its waters, fill trunk and branches drip, and the roadside ditch is a flowing river, that then leaf and bud and blossom glow and smell with a newer beauty, that the great leaves of the cornfield broaden with a more vivid green, that the waving wheat receives growing impetus and overtops the rustic fence, and every embowering grove sends out a fresher fragrance upon the summer air. It is the enriching influence of the circulation of heat and moisture—it is with this we interfere when we deforest the land. In Ontario, in many parts, we have cleared all but ten per cent., and even this small amount is not remaining. How to preserve and increase it is the chief question for Ontario to-day, for on that alone depends whether her farms shall remain fertile or become barren. In the rest of the address, which was entirely impromptu, and of which this report is necessarily but a synopsis, Mr. Phipps narrated many interesting facts concerning the influence of deforesting on agriculture in Ontario, and stated that, in the older settled parts, there were but three ways of proceeding. By windbreak, by plantation, and by preserving whatever portions of forest yet stood, by excluding cattle, which last was the main point. He gave the methods of proceeding in each case, and mentioned the trees suitable for each. He also spoke of the large pine forests in the interior, the necessity of their preservation from fire, described the burnt lands he had lately seen near the Ottawa, where for a length of seventy miles, and a breadth of twenty, in one place alone, was nothing but dead trees, useless now, a pine forest worth many millions a few years back, and mentioned that Quebec was reserving great areas for forest alone, discouraging settlement wherever the pine forest should be preserved. He concluded by saying that it was much more than a Provincial, it was more than a national, more than a moral question, it was an object which should be impressed upon us by the highest feelings of our religion. We found here the wood, the water, the fertile soil. We know that the deforesting of a country does more than remove the one, it greatly impairs the others, so that the land may not be able to support more than the tenth part it now maintains. We should remember that no proprietor can have a title to destroy the fertility of the soil, lest "the field cry out against him, and the furrows thereof likewise complain." The vast concourse of humanity continually emerges from the unknow past, it travels toilsomely by it is lost in the clouds of the future. Be sure that there we shall meet with strict questioners; nor will those pass unchallenged who have, to serve their own purposes, rendered painful, sterile, and barren the path of generations yet to follow.

The address was listened to throughout with great interest, and a spirited discussion followed, in which Mr. Alan McDougall, and Mr. Geo. Murray from their own experience corroborated the statements of the speaker.—*Toronto Globe.*

## GLASGOW LUMBER TRADE.

Among the ports of which the *Timber Trades Journal* gives exhaustive reports of the past year is that of Glasgow, which has a special interest for those engaged in the timber trade in Canada. The *Journal* says that the timber trade at Clyde ports during the past year has been in a depressed and unsatisfactory state, especially so in the latter part of the year, when there was an increased difficulty in making sales, and falling prices was the rule.

Business generally has been dull, and industries on which the timber trade is largely dependent have felt this in a marked degree, and imparted to our trade the same tone. Looking at the Clyde shipyards, for instance, it was stated in April last that 8,000 men had been discharged since November 1883, and now it is estimated there are 15,000 men under the number that were employed throughout the various yards a year ago.

But the difficulties of the wood trade have been greatly lessened during the past year by the decisive measures taken for reducing imports a considerable reduction having been carried out, and which has clearly strengthened the market. The following is a summary of the imports imports in 1884, as represented by the tonnage employed in conveyance (exclusive of arrivals at Grangemouth, which are noted apart) :—

| | *Tonnage employed.* |
|---|---|
| British North America | 65,309 |
| United States | 7,500 |
| Pensacola | 30,495 |
| Moulmein and Rangoon | 7,438 |
| Demerara | 1,366 |
| Mexico | 4,500 |
| North of Europe ports | 7,400 |

Total tonnage, 124,000, as against 210,000 in 1883.

For imports of wood goods at Grangemouth during 1884, the carrying tonnage is 85,605 tons, about 8,000 tons of which represent arrivals of pitch pine and Quebec timber, the rest being for the conveyance of goods from North of Europe ports, and consisting chiefly of deals and battens. In 1883 the total tonnage employed conveying wood to Grangemouth amounted to 99,536 tons.

Shipbuilding on the Clyde is of the greatest importance to the timber trade here, having probably hrlf the entire consuming power. It has fallen off during 1884, the total for which, however, is exceeded only by the three years immediately preceding. These three years exhibit a gradual increase; 1881, tonnage launched, 340,823 tons; 1882, 395,149 tons; and 1883, 417,881 tons. For last year the total is 299,119 tons, or a value of £7,000,000 against £10,000,000 for 1883. There is no gainsaying the fact that the depression experienced of late resulted from an oversupply of tonnage. Freights, however, are now improving, and builders are again receiving fresh orders for new ships. It is stated that shipowners in North America have been induced by the low prices to contract for the construction of some iron vessels. And there is little doubt that some of the Government work for which tenders have been invited will come this way.

The comparative activity of the wood consuming trades generally in Glasgow and districts, to which it is a centre of supply, is indicated by the quantities that have gone into consumption, particulars of which are noted below :—

Canadian Yellow Pine and Waney Boardwood.—The import during 1884 was 27,404 logs, and the consumption 34,428 logs. An average of the four years preceding gives for each the import of 45,288 logs, and consumption, 43,347 logs.

The rates for waney boardwood have been fairly steady throughout the past year (strengthened probably by the small import of 1st quality deals), say 18 to 21 in. 2s. to 2s. 5d.

The stock now remaining shows about a fourth of decrease compared with quantity on hand a year ago.

For common housebuilding yellow pine, 40 to 60 ft. per log, prices have ranged from 14d. to 16d.

The stock of deck plank, 1st class, is moderate; prices 2s. to 2s. 5d. Of 2nd class the stock is moderate, prices, say, 1s. 5d. to 1s. 8d. The demand has been quieter, and prices have gone down somewhat, owing to the depression in shipbuilding.

Red Pine.—An import of 3,943 logs and consumption 7,711 logs is shown by the past year, and the four years preceding give a yearly average import of 8,870 logs, and consumption 7,950 logs. During the past year there has not been much change from 1883 as regards prices; they have ranged from 13d. to 1. 6d. for good quality, and ordinary 11d. to 1s. 2d., according to sizes.

Oak.—The import during 1884 amounts to only 2,173 logs, and the consumption has been 6,115 logs. Averaging the four preceding years gives an import of 7,370 logs and consumption, 6,520 logs. The stock of logs at present is little more than half the amount on hand a year ago. There has been a large import of oak planks and scantlings by steam liners from the States, and the stock on hand December 31st was heavier than usual, amounting to 29,897 pieces measuring 91,831 cub. ft.

Prices for first-class oak logs have ranged to 2s. 9d. per cub. ft. ordinary quality, and 2nds have been sold at 1s. 8d. to 2s. 4d.

Elm.—There have been 2,874 logs imported during the past year, and the consumption amounts to 3,000 logs. The four preceding years show an average yearly import of 3,918 logs, and consumption 3,519 logs. Prices ruled at the opening of 1884 from 2s. 4d. to 2s. 7d. for logs 40 to 50 ft. average, but fell probably 3d. from the middle of summer.

Ash.—For 1884 the import was 2,200 logs, and the consumption 1,660 logs. For the preceding four years average yearly import 1,945 logs, and consumption 1,988 logs. There has been a fair demand during the year for best quality, 2s. per cubic foot being obtained; but latterly there was a falling off of about 4d. per cubic foot, fresh imports having come forward freely.

Birch.—Imports during 1884 amount to 7,490 logs, and consumption 6,636 logs. The four preceding years show an average yearly import of 7,004 logs, and consumption 6,608 logs. There was little change as to price in Quebec birch during the past year. Lower port, on to the middle of the year, brought from 14 to 15 in. 1s. 4d. to 1s. 9d.; but large supplies coming afterwards reduced prices 2d. per cubic foot at least.

Walnut.—The past year's import has been small, about 1,400 logs against 2,800 in 1883. There has been an average consumption, but as it is a first-class wood, a return of good trade would increase the demand. Prices have been from 3s. to 4s. 6d., and 5s. per cubic foot for 16 to 18 in. wood.

Deals.—The aggregate import of 1884 shows a marked decrease compared with recent years. Of Canadian deals the arrivals amount to 435,000 pieces, and from New Brunswich and Nova Scotia 570,400 pieces. Arrivals during 1880-3 on average give for each year an import of 761,000 Canadian deals, and 738,000 pieces N. B. and N. S. The consumption for the past year, however, compares more favorably, amounting to 736,000 pieces Canadian, and 561,000 pieces N. B. and N. S. deals, the four years above referred to averaging 677,000 pieces as the yearly consumption of Canadian deals, and same quantity, or nearly so, of New Brunswick and Nova Scotia.

The stock of Quebec deals on hand at present is light, especially so as regards 1st, 2nd and 3rd qualities; but there is a heavy stock of lower port deals. A falling off in the consumption of the commoner descriptions is to a great extent attributable to slackness in packing-box making. For 1st pine (Michigan and Quebec) prices have ranged from 2s. 9d. to 3s. 7½d. per cubic foot, the narrower breadths from 2s. to 2s. 6d.; 2nd quality, 1s. 6d. to 2s. 6d., according to specification; 3rd quality Quebec pine, 11 in. 10½d. to 13½d.; broader ranging to 1s. 9d. 4ths have sold from 9d. to 13d. Red pine (2nd and 3rd) from 9½d. to 1s. Quebec spruce have brought from 9d. for 3rds to 1s. 2½d. for 1st quality, 4th 8d. and 8½d. Lower port spruce 7⅜d. to 11⅜d., and pine 8½d. to 12½d.

Staves.—Arrivals from Quebec amount to 140 milles, which is less than half the ordinary importation; the consumption also has been comparatively small, 154 milles. Imports from the States have been 660 milles—a larger total than usual; and the consumption also is greater, being over 700 milles; the stock on hand is moderate.

Quebec merchantable pipe have ranged from £65 to £80 and W.O.W.I. £16 to £20. United States hogshead staves (prime) have sold at £19 10s. to £21 10s. Barrel have varied from about £13 to £14 10s. Prices for pipe have been steady, 4½ feet bringing £42 10s. to £45, and 5 feet according to quality £45 to £52.

Pitch Pine.—There is an increase of stock compared with this time last year. The year's arrivals at Clyde ports amount to 38,194 logs, hewn and sawn, and about 20,000 planks; the consumption has been about 34,500 logs. There has been an average yearly import, taking the preceding four years, of about 44,000 logs,

hewn and sawn, which is nearly equally balanced by the consumption.

Prime Apalachicola, at the opening of the year, brought 1s. 5d. to 1s. 6½d. for 90 to 110 ft. per log, and Pensacola 1s. 3d. and 1s. 4d. for 80 to 90 ft.

A large business was done in sawn timber during the early months from 1s. 2d. to 1s. 7d., according to size and quality, but under pressure of sales and receding business lell about 2d. per foot. For planks prices have been 10d. to 13d., according to quality and specification.

### FROM AMERICAN LOGGERS.

There are a great many men who, in their minds, are bound there shall be no material curtailment of the log output this season. It is not strange that people unacquainted with the progress made in logging on the various streams should hold to that opinion, for they at least know the vim which characterizes the average logger, and they think that this vim cannot be easily curbed. Facts are facts, nevertheless, and that a great many less logs will go in this winter than last admits of no question.

It has been noted in several newspapers that a large concern, operating on the upper peninsula of Michigan, had nearly completed its original estimates, and that an annex, so to speak, would be attached to them. To-day news reaches us that this company's skidders have been discharged, which must set the rumors of an increased cut at rest. There can be no doubt but that in many cases the original estimates will be overrun; in fact some loggers went into the woods with a sort of sliding scale. A member of one of the Jumbo corporations visited this office yesterday, and said that his company started in to cut 40 per cent. of the amount banked last season, with the understanding that if the conditions proved favorable the cut would be increased to 50 per cent., but, under no conditions would the latter figures be exceeded.

A majority of the large operators want to be understood as thoroughly in earnest. A man who last year banked 55,000,000 feet, and who this year declares his intentions to bank less than half of that amount, sent word to the editor of the *Lumberman* that if the latter ever intimated in the columns of his paper that this operator "does not mean business" he (the operator) would visit the office with a club! There are men who log in a small way who will rush in where "angles fear to tread" and try to make capital out of their neighbors' inactivity; but the logs banked by these men form but a small proportion of the grand total.

During the past week rapid work has been done. The weather has been too cold for easy hauling, except where ice roads are used, and the low temperature has been detrimental to the men, but on every stream the best foot has been put forward. There is snow enough in every district, with some to spare on the upper peninsula. If the low lands and swamps are not hard no one will think of charging it up to the weather.—*Northwestern Lumberman.*

THE great importance of the lumber business in the northwest, is demonstrated in an exhaustive review of that industry recently published in Minneapolis. The total cut in the northwestern lumber region was 2,534,398,361 feet of lumber, 1,059,354,300 shingles and 630,090,780 lath—an increase over the cut of 1883 of 447,811,966 feet of lumber, 202,994,030 shingles and 85,799,850 lath. The stock on hand December 1st aggregated 1,795,708,522 feet of lumber, 424,908,406 shingles and 310,276,600 lath, an increase over the total of December 1st, 1883, of 600,078,686 feet of lumber, 50,011,556 shingles and 199,513,700 lath. The anticipated log supply is placed at 2,619,866,000, of which 1,522,500,000 represent new logs.—*Lumberman's Gazette.*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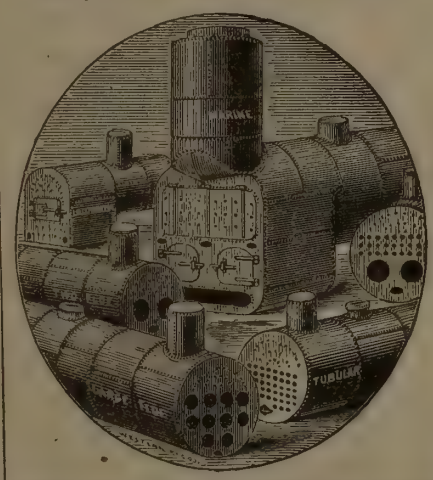

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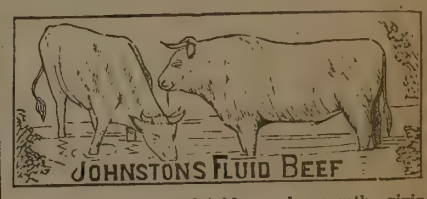


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., FEB. 16, 1885.*


ADVICES from Ottawa state that the prices of the lower grades of sawn lumber are looking up. Considerable shipments have been made recently.

LUMBERING operations in the woods in the vicinity of St. George, Beauce, have been considerably retarded by lack of sufficient snow and even at the present time there is scarcely enough in the bush for moving the logs.

MESSRS. FLINT & HOLTON'S steam saw and planing mills and grain elevator were burned at Belleville on Feb. 11th, with all their contents, including valuable machinery. A quantity of lumber was also burned. The loss estimated at from $18,000 to $25,000.

MR. GEORGE JONES and Mr. John E. Ellis, of Fenelon, boast that they sawed with a lance-tooth saw ten cuts in an ash log in five minutes, the log being fourteen inches in diameter at the butt end and eight inches at the top. The feat was performed on Mr. Ellis's farm in Fenelon.

THE goods exported to the United States from the Consular district of Sherbrooke for the year ended 31st December last, amounted in value to $579,516. This includes lumber dressed and undressed, $265,476; bark, $88,225; cattle, $55,967; wood pulp, $55,010; asbestos, $51,320.

THE shingle mill owned by Mr. W. Bick at Bobcaygeon is to be enlarged and Mr. J. Makins of Lindsay has received orders to build for the mill a complete circular saw rig and a quantity of shaftings, pulleys, etc. Mr. Makins will also supply a new 24-horse power engine to furnish additional power. The enlarged mill will call or a second boiler, which will be put in.

BOSWORTH & REILLY, of Stevens Point, Wis., have bought of John Week the remainder of what is known as the Single tract on the west side of Wisconsin river, above Mosinee, on which is 10,000,000 feet of standing pine. The price paid was $23,000. The same firm has bought all the pine on the Rib river belonging to the Wuerthric estate.

## CANADA'S TRADE WITH BUENOS AYRES.

The shipments of lumber from the St. Lawrences to the River Platte show a flattering increase in recent years, and in the same way that the consumption of iron in the in the various countries of Europe is typical of their relative progress so we may gauge the progress of Buenos Ayres by the imports of lumber.

According to the official returns the shipments from the St. Lawrence have been as follows:—

| | *Average per Annum.* |
|---|---|
| 1870 to 1874 | 24,200,000 feet. |
| 1875 to 1880 | 9,150,000 " |
| 1881 to 1883 | 19,330,000 " |
| 1883 | 34,120,000 " |

A business of such vast importance is shared by three houses, Messrs. Maguire, of Quebec, shipping this year 12 million feet; Mr. James E. Ward, 10½ million, and Mr. John Dunn, 10 million feet. There are also two houses of minor note, namely, Price Brothers and Crossman, which make up between them two million feet.

We take this occasion to welcome Mr. John A Maguire, Consul-General at Quebec, who arrived per s. s. Buffon, and whose influence and enterprise are so favorable in Canada to the interests of the River Platte. It is confidently estimated that the trade returns of 1884 will show exports from that country to Buenos Ayres to the amount of 15 million hard dollars. So long as the Agentine Republic has consuls abroad of the stamp of Mr. Maguire we may expect to see our trade relations rapidly increasing.—*Buenos Ayres Standard Dec. 23.*

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Jan. 27, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C.:—

311,442.—Lumber drier—H. Morton, Pullman, Ill.

311,212.—Pulp from wood, machine for grinding—A. B. Tower, Holyoke, Mass.

311,435.—Saw—A. Lord, Brooklyn, New York.

311,170.—Saw tab—A. R. Beurmann, East Saginaw, Mich.

311,301.—Saw tooth—J. E. Emerson, Beaver Falls, Pa.

311,421.—Sawing machine, circular—W. H. Doane & G. W. Bugbee, Cincinnati, Ohio.

311,241.—Vice, saw—H. Flater, Findlay, Ohio.

311,424.—Wood, machine for bundling kindling—J. C. Everet and R. Hardie, Williamsport, Pa.

PATENTS ISSUED FEB 3RD.

311,608.—Flooring clamp—A. Redman, Chicopee, Mass.

311,481.—Saw filing tool—W. Golden, Port Huron, Mich.

311,486.—Saw guard—J. G. Groff, Connersville, Ind.

311,701.—Saw mill head block—T. S. Wilkin, Milwaukee, Wis.

311,692.—Saw tooth, insertible—J. C. Trullinger, Astoria, Oregon.

311,501.—Sawing machine—W. Lucas, Markdale, Ontario, Canada.

311,675.—Sawing machine—J. W. Poff, Harrisburg, Ark.

311,487.—Vice—T. G. Hall, Brooklyn, N. Y.

## SOME FIGURING.

IN another column of this issue we republish a review of the timber trade of the ports of Liverpool and Glasgow for the year 1884, which cannot fail to be interesting. In the same number of the *Timber Trades Journal*—a magnificient number, containing much valuable information—there is also given a statement of the annual supply of foreign timber to the United Kingdom (exclusive of staves and furniture woods) from 1878 to 1884, both inclusive. The number of loads supplied by British North America, of both sawn and hewn, during these years was as follows:—1878, sawn 260,890, hewn 963,171; 1879, sawn 196,431, hewn 904,589; 1880, sawn 360,622, hewn 1,147,040; 1881, sawn 298,514, hewn 994,149; 1882, sawn 277,745, hewn 1,010,413; 1883, sawn 336,184, hewn 1,181,606; 1884, sawn 230,759, hewn 976,148. The total amount, therefore, imported into Great Britain from Canada in 1884 was 1,206,907 loads, while the total importations were 5,997,275. The importation from Canada in the seven years included in the statement were 10,038,361 loads, and the total importations into the country 40,421,032.

## LIVERPOOL TRADE.

Liverpool being one of the principal ports to which Canada ships her timber, the following review, from the *Timber Trades Journal*, of the trade of last year at that port will be read with interest:

In compiling this review of the course of the timber trade of this port for the past year it will perhaps be most satisfactory to your readers to deal with the various statistics and the comments upon them by dividing them into separate paragraphs, and apportioning them to the various great centres from which we receive our supplies wood. With this object in view the British North American Colonies claim primary attention as being the most important, not only from their position as holding first rank in the sources of our supplies, but from the fact that they long held a primary position in the timber trade of Liverpool.

Turning first to the Canadian markets, the most noticeable feature is the marked decrease in the import of Quebec square and waney pine timber, only 29,503 logs having come forward, as compared with 49,839logs in 1883, and 37,214 logs in 1882. There has, however, been a fairly steady demand during the year, and the consumption does not contrast unfavorably with that of the two previous years, it being nearly 2,000,000 cub. ft.

These figures will, however, make the position clear as showing the comparative supplies, consumption, and present stock on the last years:—

| | Import. | Consumption. | Present stock. |
|---|---|---|---|
| | | Cub. ft. | Cub. ft. |
| 1884 | 29,503 | 1,867,000 | 674,000 |
| 1883 | 49,839 | 2,179,000 | 908,000 |
| 1882 | 37,214 | 1,876,000 | 567,000 |

But in addition to this we have from St. John, N. B.:—

| | Import. | Consumption. | Present stock. |
|---|---|---|---|
| | Logs. | Cub. ft. | Cub. ft. |
| 1884 | 2,156 | 121,000 | 21,000 |
| 1883 | 4,654 | 132,000 | 30,000 |
| 1882 | 2,081 | 85,000 | 51,000 |

and a quantity from various lower ports, so that in all classes of yellow pine the consumption drawn from this market has been, in

1884 abont 1,965,000 cub. ft.
1883 " 2,311,000 "
1882 " 1,940,000 "

This is a much better result than the dull state of trade during the year would have warranted us in assuming.

RED PINE, once a favorite wood with the mast and spar maker, appears falling into desuetude, and is being supplanted by pitch pine, as only 32,000 cubic feet has been consumed during the year.

QUEBEC OAK LOGS.—Until nearly the end of the year there was only a moderate demand, but recently a little more animation has been displayed; still the consumption contrasts unfavorably with preceding years, being only about 600,000 ft. against 700,000 in 1883, and 658,000 ft. in 1882.

The substitution of United States oak cut to scantlings for railway waggon building is having considerable influence upon the demand for the Canadian logs, especially as the former is being imported at prices much below the cost of the latter in the log. The stock, however, is moderate, being only about 239,000 ft., whereas it was 330,000 ft. in 1883, and 335,000 cubic ft. in 1882.

ELM has been in fair request during the whole year, and the stock is now very small, being only 15,000 ft. On this account prices have recently advanced.

QUEBEC PINE DEALS.—The import of these goods has been about an average of the two preceding years, the quantities being in 1884, 1,675,516 pieces; in 1883, 1,848,499 pieces; and in 1882, 1,473,930 pieces; and with a consumption beyond the average of the preceding stocks are lighter than usual, being only 5,820 standards against 8,459 standards in 1883, and 8,482 in 1882. This stock now consists chiefly of 3rd and 4th qualities, the market being almost cleared of 1st and 2nd qualities, which recently sold by retail at extreme prices.

SPRUCE DEALS.—This market is the great centre for these goods, and it has been freely supplied from nearly every port whence they are shipped. It is true that the imports have not been on quite such a large scale as in previous years, but they have been more than sufficient for the demand; hence, with a consumption less than the two preceding years, we have a stock in excess of any probable demand during the next year, which renders the chance of any material rise in price improbable, unless the production abroad is greatly curtailed. Prices throughout the past year have ruled low, owing to the depressed condition of the freight market, and have been subject to little fluctuation. The following figures will give the estimated quantities of

| | Import. | Consumption. | Stock. |
|---|---|---|---|
| | Pieces. | Standards. | Standards. |
| 1884 | 5,476,000 | 66,533 | 26,390 |
| 1883 | 6,273,000 | 79,000 | 24,000 |
| 1882 | 5,670,000 | 68,550 | 22,714 |

The Canadian freight market has been very steady during the season; for sailing vessels with timber the fluctuations have not been more than 3s. or 4s. per load, whilst the steamers on the regular lines trading between Montreal, Quebec and this port, keep the deal freights in check, as they are usually contracted for early in the year.

The tonnage employed during the year in the Canadian trade is estimated at about 250,000 tons, which shows a decline of about 55,000 tons from last year.

The United States have sent us quite as much pitch pine as was desirable, and prices have therefore ruled low throughout the season. Hewn timber, unless of unusually good make and character, meets with little favor, whilst sawn pitch pine, on account of its economical manufacture and its adaptability for general building purposes, is making further progress in the estimation of builders and contractors, and now appears to have fairly supplanted the common building timber which in former years was so largely supplied by Canada.

The stocks on hand are quite sufficient for all probable requirements, and unless shippers curtail supplies very materially, the hope of better prices may be abandoned for some time to come. The total consumption for the year does not appear bad when compared with previous ones; but it must be borne in mind that during the season many cargoes of both hewn and sawn timber were forced off by auction "without reserve," and, tempted by the low prices, many shipments found buyers who otherwise would not have been in the market, excepting for prime wood.

The stocks of hewn and sawn timber are:—

| | Hewn timber. | Sawn timber & Planks. |
|---|---|---|
| 1884 | 521,000 cubic feet. | 341,000 cubic feet |
| 1883 | 305,000 " | 530,000 " |
| 1882 | 629,000 " | 606,000 " |

BALTIC WOODS.—With the exception of flooring from Norway and low class Swedish goods, there is little business done here now compared with previous years. The low rates of freight to the East Coast ports, and the advantages given by railway companies in that district enables the merchants, in those favored ports, to compete with our buyers here within a very short distance from here; therefore the consumption is limited almost to the immediate neighborhood of the city—at any rate, so far as the demand for red deals is concerned, especially of first-class shipments. Flooring has ruled low during the past season, and buyers have had pretty much their own way in fixing their specifications and prices; still sellers have always been found to meet the market.

The stocks of Baltic, including White Sea goods, are as follows:—

| | Timber. | Deals. | Boards. |
|---|---|---|---|
| 1884 | 111,000 cub. ft. | 3,560 stds. | 3,058 stds |
| 1883 | 216,000 " | 5,005 " | 4,066 " |
| 1882 | 80,000 " | 4,495 " | 3,261 " |

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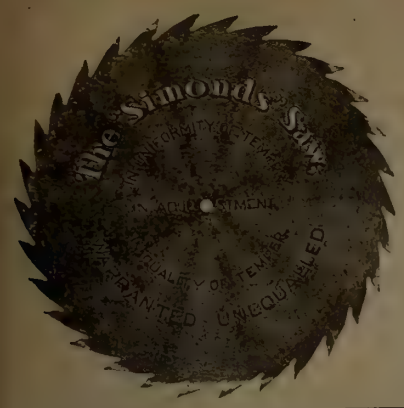


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A DESPATCH of Feb. 2nd, to the Montreal *Times*, from Quebec, says that there seems an anticipated shortness in the deal market and a feeling of uneasiness is said to exist owing to the rumours of an attempt at cornering by some of the lumber shipping firms. The cuts of most of the mills for the coming season have pretty well all been secured and it is even said that contracts have been made with several of the mills of large capacity for their cut of 1886.


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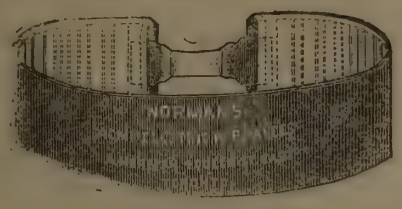


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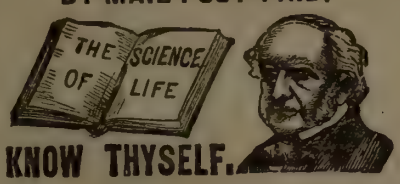


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## MIRAMICHI TRADE.

Mr. J. B. Snowball's Miramichi wood trade circular for the year 1884 reviews the wood trade during the past year as follows:—

In common with all other branches of business we have to report another year of extreme depression and actual loss for some one on almost every cargo handled.

While exporters had the worst of the business for several years past the operators in the forests, through a combination of circumstances, not only held their own, but, in some instances, accumulated considerable profits. This year, however, the losses have fallen with severity on the operators, the shippers refusing to follow the losing game further.

This has naturally resulted in reducing the production in this vicinity to a minimum, and and the current season's output will, it is estimated, not exceed 75 per cent. of last year's, which was 27% less than that of the year previous and about 15% less than the average for the past 10 years.

The Nova Scotia export, as well as that of New Brunswick, shows a fair decrease, and this must apply to all spruce ports, as this wood cannot be produced at the prices it has sold for for years past.

The stocks of wood being wintered are estimated at 26 millions superficial feet, against 40 millions last year and 45 millions in 1882. This stock is largely in first hands, and shippers naturally refuse to buy beyond present requirements of stock that could only be handled at a loss.

The extremely low freights ruling during the entire season enabled outports to obtain all the tonnage they required—consequently the stock held over at these placcs is supposed to be almost nil.

The shipments for the past five years from this port were as follows:—

| | | | |
|---|---|---|---|
| 1880—155 | Millions | superficial | feet. |
| 1881—128 | " | " | " |
| 1882—117 | " | " | " |
| 1883—149 | " | " | " |
| 1884—108 | " | " | " |

The export of deals, etc., from this port for 10 years, viz., from 1885 to 1884 inclusive, was 1,247 Millions super feet, or an average of 124 7-10 Millions per year.

Among other details of shipments from port of Miramichi, N. B., for season of 1884, the following are given:—

R. A. & J. Stewart, vessels, 52; tonnage, 30,846; sup. ft. deals, etc., 26,680,000; palings, 7,000; Birch, 441; Pine, 630. J. B. Snowball, vessels, 48; tonnage, 27,448; sup. ft. deals, etc., 21,392,083; palings, 1,884,000; birch, 376; pine, 1,670. Guy, Bevan & Co., vessels, 41; tonnage, 26,359; sup. ft. deals, 22,558,765; palings, 168,000. George McLeod, vessels, 43; tonnage, 25,170; sup. ft. deals, etc., 22,580,238. D. & J. Ritchie & Co., vessels, 19; tonnage, 10,073; sup. ft. deals, etc., 9,166,000; palings, 107,000; birch, 115; pine, 172. Alex. Morrison, vessels, 8; tonnage, 5,173; sup. ft. deals, etc., 4.511,178; birch, 487; pine, 83. George Burchill & Sons, vessels, 1; tonnage, 684; sup. ft. deals, etc., 612,000. Wm. McCorkell, vessels, 1; tonnage, 540; sup. ft. deals, etc., 481,584. Totals: vessels, 213; tonnage, 126,293; sup. ft. deals, etc., 107,982,848; palings, 2,166,000; birch, 1,419; pine, 2,555.

## FLOORS FOR SUSTAINING WEIGHT.

The designer of a certain warehouse in Germany, unable to find definite data of the resistance of such floors, resolved to make trials for his own information, and incidentally for that of his professional brethren. The warehouse was of immense size, covering nearly an acre of ground, and was intended for the storage, among other things of heavy pieces of metal, the handling of which often involved considerable shocks to the floors. The whole building was fireproof, part of the flooring being of brick arches in cement between iron beams, and part of concrete slabs supported in the same way. Five trial floor arches were built, each 44 in. in span, of which the first consisted of concrete, made with one part Portland cement to five parts of gravel, while the second was of hard bricks in Portland cement mixed with three parts of sand, and was covered with a coat of asphalt three-quarters of an inch thick; the third was of softer brick, in mortar, containing one-half as much lime as cement, and four parts sand; and the fifth was of the same brick, in equal parts of lime and cement, and five parts sand; and the fifth was of the same brick, in cement with four parts sand. These last floors were finished with a coat of cement three-quarters of an inch thick or more.

Fifty-four days after their completion each floor was loaded with pig-iron to the amount of 200 pounds to the square foot. This weight had no effect and two days later the concrete arch was tested by letting fall upon it an iron ball of 60 pounds weight. This, dropped from a height of five feet, did no harm, and another ball of 135 pounds weight was let fall from the same height. The first blow produced no effect, but by dropping the ball repeatedly on the same spot a crack was started at the fourth blow, and the eighth broke a hole entirely through the floor, the opening being four inches in diameter at the top and 24 inches at the under side.

Thirty days later the same test was applied to another part of the floor, and a hole of the same size and shape was broken through at the ninth blow of the ball. The thickness of the concrete in the middle of the span was 4 in. Trials were made of the same way. The first, of hard brick in strong cement mortar, stood 48 blows of the heavy ball before it was pierced; the second, of softer brick, with lime added to the mortar, gave way at the tenth blow; the third, at the seventh blow; and the last, of soft brick in sandy cement mortar, without lime at the tenth. In all these cases the hole broken through was much larger at the intrados than at the extrados. A new floor was then built of soft brick, in mortar made with two parts lime to three of cement, and ten of sand, and covered with a layer of concrete, of equal parts of cement and sand, and 2 inch thick. After this had set, the floor required 71 blows of the 135 pound weight to break it through. This protective effect of the thick layer of concrete over bricks is very curious, but aside from this the result of the tests was decidedly in favor of the brick arching.—*Timber Trades Journal.*

## LEATHER BELTING.

It is not all good material that makes the best appearance; in the largest belts the material may look and handle all right, but their use involves a loss of energy and pawer. Leather to be placed on the sole of a boot or shoe need not necessarily possess more than two distinctive characteristics, namely flexibility sufficient to permit its bending to the motion of the foot without unnecessary pain to the wearer, or breaking its attachment to the upper, and its interstices filled with foreign matters in the tanning processes, that the entire mass will be of a homogeneous character, enabling it to resist to a certain extent the contact of hard substances as grit and pavements. With belt leather, however, other and additional distinctive features are needed.

If a leather belt lacks pliability unequal contact on wheels, drums and pulleys is a result, which means not only a great loss of power, but unequal wear of belts, shafting out of true, machinery unevenly worn, and sad demoralization throughout the shop. We have seen on many occasions boilers and engines of a certain power or capacity utterly refuse to work and stop with a thug in doing work requiring less than three-fourths their estimated capacity, and in instances not a few the belt or belts were to blame for it all. One instance which happened in Louisville only a short time ago was shown that a hard inflexible ridge in the belt caused it all, while the belt, when new was considered the finest on exhibition at the exposition held in that city during the season of 1883. As all know, when a new belt is put on it is subjected to a much greater strain than an old one, inasmuch as the natural expansion of the leather has to be exhausted before the ullimate energy and power of the belt can be attained. In the case mentioned the belt expanded its entire length evenly, excepting this small portion, which happily in this instance ran entirely across, and after being cut out and replaced with a new piece the boilers and engines do the work according to their estimated capacity; this little strip presented a singular appearance, seemingly it had no more expansion and flexibility than a piece of burnt leather, at the same time it presented a good tensile strength. The hide out of which this particular piece of leather was made was doubtless of an animal that some time during its life had received personal injury, and the healing of the wound had resulted in the closing of all the pores, and the tanner's manipulation failed to soften the solidified gelatine, hence it was nothing more or less than a piece of preserved, hardened animal tissue. Had the streak of dead leather extended only partially across, the entire belt would have been virtually ruined by the same tension which ruins belts when used on shafting, pulleys, and drums sadly out of true.

Again, belts must not be too full of open pores, this gives them the property of absorbing moisture in the form of the hot vapors about the engine room, and as water and oil refuse to live in unity, all the lubricating substances of the belt are driven away, and their place occupied by water and some foreign matter which soon causes inflexibility and probably cracking. It is possible that leather, or rather hides naturally spongy, may be filled with substances known to the secrets of tanning that will render a comparatively inferior quality of leather a fair material out of which to construct belting. This, however, opens a way temptation among unprincipled parties to use a really poor quality of fulled leather in the manufacture of belts for heavy work. Indeed, we saw in St. Louis a large fifty-two inch belt that was made of very poor stock, which to all intents and purposes in so far as appearance and handling was concerned was a superior belt, but when a section was subjected to test it was found inferior to ordinary belts half the size, but the ordinary observer would have given the large inferior belt the perfence of purchase.

Then, again, belts should be made of such material that there is a limit to this expansion, if not much loss ensues by means of its tendency to become longer at the expense of thickness and breadth, besides belts so expanding are apt to contract when not in use and the greatest of all leaks or losses of power follows, namley the slipping of belts. Physicially speaking much better results are obtained by making belts in short sections cut tranverse with the hide, for, viewed by means of the microscope, the hide cut across will stand a greater tension than a piece cut lengthwise, inasmuch as the network seems to be composed of larger fibre around the body of the animal than from head to tail.

In conclusion, when belts are joined the fibre ought never be cut, for this reason a punch which cuts out the small hole should never be used, for the strength of the belt is weakened to the same extent as the proportion removed, whereas if an awl or some such instrument be used, it penetrates between these fibres without cutting, on the same hypothesis that a hole made through a bit of cloth with a bit of sharpened bone will not cut either warp or woof, while if a fine knife be used for making a hole of the same size the strength of the fabric is partially destroyed. If the lace holes are thus made, and a good quality of lace leather used, the tension and contractibility of the leather will act as a holder for the lacing, so much so that with good materials every other lace may be cut on one side and the belt will not separate at the joint; the holes being filled with the lace contract and nearly resemble one piece of solid leather. A freshly cut section of belting so laced sent to this laboratory a short time ago has such perfect joints that considerable force is required to punch out the lacing stubbs that plug up the holes made by means of an awl.—*Lumber Trade Journal.*

## LUMBER IN MEXICO.

United States Consul Winslow, of Guerrero, writes that the amount of timber useful for manufacturing purposes in Northern and Central Mexico is very limited. The mesquite, the principle native product, although it is a very hard wood, and capable of taking a fine polish, is not suitable for generally manufacturing purposes as the trunk and branches are very crooked, and a straight piece of over two yards long seldom occurs. It is used, however, for making doors, door frames, for railroad ties, and for the heavy beams placed over the doors to support the stone walls, and for a number other articles for which long lumber is not required. Its hardness, color, susceptibility of taking a fine polish recommend it as useful for veneering for making clocks, sewing machines, tool handles, and some articles of furniture.

There is, and will be, a demand for lumber, especially pine lumber, at those points reached by the Mexican Central, National, and International railroads, as new towns are being built along these roads; and, besides, large quantities of lumber are used in the mines and in the construction of bridges. All this lumber must come from the United States, but then the demand is not so great as may be supposed, as the manner in which Mexican houses are built must be taken into consideration. The houses, with but tew exception, are of one story, some twenty feet high, and from twelve to fifteen wide, with flat roofs; built of blocks of stone, with walls two feet thick. The floors are made of a concrete, consisting of lime, sand, small stones, and water mixed together. The ground having been leveled where the floor is to be made, this composition is spread evenly over the surface, is allowed to dry somewhat, and is then beaten down by heavy wooden pestles, and afterwards when nearly dry is smoothed down and polished by rubbing it over with round blue limestone. This requires considerable time and patience. The floor when thus made is smooth, glossy and hard, and will last twenty years. Wood floors are not suitable for this country, as they are liable to be eaten by insects, and afford a hiding place for vermin. The walls are plastered inside and outside, and whitewashed. The roof is made by extending joists from one wall to another, so that the joists show inside, and on the principal joist is painted date of building and some religious or political motto. Over the joists is nailed a flooring of boards, so that the flooring of a Mexican house is really on the roof. Over the roof is spread a composition, similar to that of the floor, which is also beaten down, so that the house becomes perfectly watertight and fireproof, and will easily last one hundred years. For example, the house in which the Consul lives was built in 1778. The roofing is of Sabine and the doors of mesquite, and they are still sound. The houses consist generally of one room, some ten or twelve yards long, with sometimes another attached, as a kitchen; but the kitchen is most frequently made of adobe, and thatched with straw, and is in the back yard, retired from the house. The houses of the poorer class are made of adobe, or of sticks stuck in the ground and plastered with mud. The kind of lumber best to ship to Mexico are joists, two by twelve inches and sixteen by twenty feet long; pine and cypress boarding, one inch thick and twelve inches wide, scantling, two inches thick and four inches wide; double doors, one and three-quarters of an inch thick, six and a half feet high, one foot and a half wide; Venetian blinds for doors: shingles; oak, hickory, and ash lumber, three to four inches thick and ten to twelve feet long; materials for making carts; cart and carriage wheels, etc.—*Lumber World.*

**Old Inveterate Strictures**

of the urethra, speedily and permanently cured by our improved methods. Pamphlet, references and terms, two three-cent stamps World's Dispensary Medical Association, 663 Main Street, Buffalo, N. Y.

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.*

1y182.

# Chips.

BLOOD BROTHERS, of Petoskey, Mich., lately shipped 19,000 rolling pins to one address.

THE Chippewa Lumber & Boom Company pays upwards of $25,000 taxes in Eau Claire county, Wis.

DURING the year 1884 the Eau Claire Pulp & Paper Co., of Eau Claire, Wis., censumed 1,165 cords of poplar wood.

COL. BOOTH has 31 teams and 100 men engaged in getting out cordwood, at Triple Rock, between Charlevoix and Petoskey, Michigan.

FOREIGN exports from Puget sound, W. T., ports in 1884 amounted to the value of $1,415,638, more than half of which was for lumber.

NO white men are allowed to work in the Indian logging camps at Lake Court d'Oreilles, and the copper tinted logger get good wages for his labor.

ONE Minneapolis cooper shop has decided to use shaved hoops, and has contracted for a large quantity of them. It will employ steam in soaking them.

THE receipts of white pine lumber at St. Louis in 1884 amounted to 134,759,928 feet, against 129,492,329 feet in 1883; and of shingles 74,570,533 against 60,056,671 in 1883.

AT Tigerton, Wis., the following prices are paid for hardwood logs, delivered: Rock elm, $3 a thousand; basswood, $4; soft elm and bird's-eye maple, $6, and birch, $7.

HACKLEY & HUME, of Muskegon, Michigan, have suspended work on their logging railroad, near Harrison, Claire county, Mich., and are putting their log into Long Lake.

MR. PETER ALLEN cut from an elm tree on lot 14, concession 3, Garafraxa seventeen and three fourths single cords of twenty inch wood. A big looking pile from one tree.

A SAGINAW lumberman evidently has faith in the future of the lumber business. He informs a Saginaw paper that he is asking $10 for Norway bill stuff which he sold for $7 last fall.

CASS & MORRISON have purchased of Seymour Brothers, Manistee, Mich., 5,000,000 feet of standing pine on Sauble river, Lake county, Mich., which will be logged this winter.

AT Nicholl's mill, Charlevoix, Mich., there were recently received two elm logs, one 43 inches in diameter, scaling 1,027 feet. Both were cut with three others from the same tree, and were sound to the centre.

JANUARY 1st, 1885, there 115,208,000 feet of lumber in the Albany market, against 98,801,000 feet January 1st, 1884. There is less Canada pine than a year ago and more Michigan pine.

VAN AUKEN & PETTEN have a hardwood mill nearly ready for operations at Echo, Antrim county, Mich. The building is 90 feet in length. The firm has large contracts for hardwood lumber.

BERNARD FREDERICKS, of Belknap township, Presque Isle county, Mich., is manufacturing a considerable quantity of cedar shingles. He has a contract for the delivery of 2,000,000 to eastern parties.

I. M. WESTON, of Grand Rapids, Mich., who is heavily interested in yellow pine lands in Mississippi and Louisiana, is said to be negotiating for a large body of hardwood land in northern Mississippi.

A MAN who has been up on the Big Elk, Chippewa district, Wis., says that there will not be over 14,000,000 feet of logs put in on that stream this winter, whereas, last season, there was 65,000,000 feet banked.

IT is stated that recently the prices af logs in the Puget sound region have advanced from $4.50 to $5 and $6 a thousand, and the price of coarse lumber at the mills has advanced from $8 to $9 a thousand.

THE new barge for the Manistique and Tonawanda, N. Y., lumber line will be the largest of any in the fleet. Work on the craft is being crowded along as fast as possible, so that she will be ready for traffic in the spring.

J. CUMMER & SON, of Cadillac, Mich., are putting in band sawing machinery, with a capacity of 20,000 feet a day. O. A. Clark recently purchased the old Bond mill, at that point, and will put in a band saw for cutting hardwood.

A LINE of steamers is contemplated between Tacoma, W. T., and Yokohama, Japan. The lumbermen of that coast favor the line, because Japan is already a considerable consumer of Puget sound lumber, and a steamer line will facilitate this trade.

IT is reported that the Glens Falls Paper Mill Company will introduce the Pond sawdust pulp machines, and begin the manufacture of sawdust paper. A large platform is said to have been built under one of the mills to catch all the dust and edgings that have heretofore gone into the river.

A DETROIT lumber dealer has written to a man at Marquette, Mich., requesting that he secure ground and dock facilities at that point on which to erect a mill. The Detroit man claims to have a contract for furnishing 25,000,000 feet of hardwood lumber to eastern parties, and that the proposed mill will employ 30 to 40 men.

**"Work, Work, Work!"**

How many women there are working to-day in various branches of industry—to say nothing of the thousands of patient housewives whose lives are an unceasing round of toil—who are martyrs to those complaints to which the weaker sex is liable. Their tasks are rendered doubly hard and irksome and their lives shortened, yet hard necessity compels them to keep on. To such Dr. Pierce's "Favorite Prescription" offers a sure means of relief. For all female weaknesses it is a certain cure. All druggists.

J. T. LAMBERT,

*Lumber and Commission Agent.*

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And all kinds of Platform and Small Counter Scales.

Send for Catalogue. 6i24

## International & Colonial Exhibitions

**ANTWERP IN 1885—LONDON IN 1886.**

IT IS THE INTENTION to have a Canadian representation at the INTERNATIONAL EXHIBITION at Antwerp, commencing in May, 1885, and also at the COLONIAL and INDIAN EXHIBITION in London in 1886.

The Government will defray the cost of freight in conveying Canadian Exhibits to Antwerp, and from Antwerp to London, and also of returning them to Canada in the event of their not being sold.

All Exhibits for Antwerp should be ready for shipment not later than the first week in March next.

These Exhibitions, it is believed, will afford favourable opportunity for making known the natural capabilities, and manufacturing and industrial progress of the Dominion.

Circulars and forms containing more particular information may be obtained by letter (post free) addressed to the Department of Agriculture, Ottawa.

By order,

JOHN LOWE,
Secy., Dept. of Agric.

Department of Agriculture, Ottawa, December 19th, 1884. 6d1-6i1

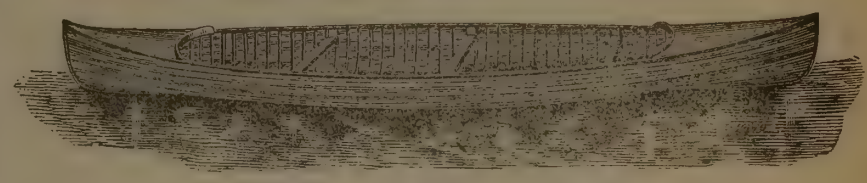
**The Ontario Canoe Co., Limited**

PETERBOROUGH, ONTARIO,

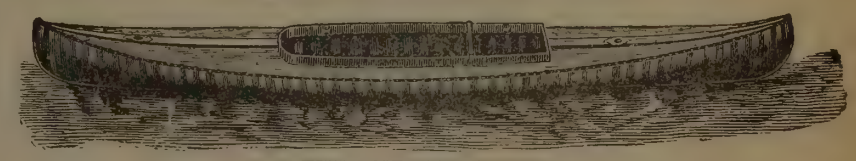
Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

**CANOES**

*Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.*



PATENT LONGITUDINAL RIB CANOE.



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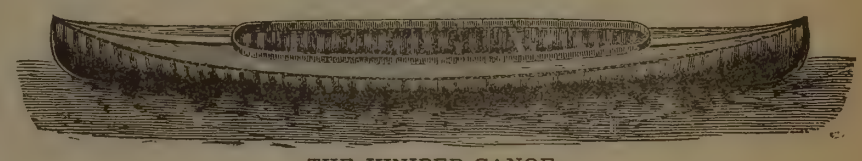

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LEATHER Belting.

SILVER MEDAL at Montreal, 1884

SILVER MEDAL at St. John, N.B., 1883.

Silver Medal, Montreal, 1882.

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**H. WILLIAMS,**

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H. WILLIAMS,
4 Adelaide Street East, Toronto

17

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

FEB. 9.—The continued cold weather of the last few weeks keeps building at a standstill, and as natural consequence there is scarcely anything selling either from the yards or cars. The demand on the local market when the spring opens will undoubtedly be good. A large number of buildings were in course of erection when the severe frost put a stop to all outdoor operations, and when work on such is once more resumed, and others started that are now under contract, things will be lively. Dry lumber at the mills north of us, except in hemlock, is nearly exhausted, and the few mills that are now running have more bills to fill by the opening of spring than they will be well able to turn out. The quantity of hemlock used here last season was much larger than formerly, and if well cut and good timber, is superior to pine for joisting and studding. Why it is that architects resolutely ignore the the favorable qualities of hemlock for building purposes is hard to find out, but such I know to be the case. True, it is harder to work up, but when cut and dried in the pile, being careful to pile each length separately at the mill and placing two courses before stripping, and then to be used in all work above the ground, its qualities for strength and properties for lasting will be found on a fair test to be superior to pine. I do not make this assertion at random, but from long experience and observation, and the day is not far distant when its worth will come to be more fully recognized. We can now count with some degree of certainty on the probable cut for the coming season, and I think I am correct in saying that the manufacture for 1885 will be 25% less than during 1884, and it would have been better for the interests of the trade if the cut was reduced 50%. Overproduction in the past has been the bane of the lumberman,—mill men and retailers alike—a plethora at the mills means force sales on our local markets, and the retailer is induced to purchase largely by reason of the low figures quoted him, and the result is the mill mens purses are lighter than they should be, and the retailer finds himself carrying a larger stock than his capital warrents him in holding, as the day for payment for this surplus stock comes around, renewals have to be asked for, banks become suspicious and financial difficulties is the result. In a future letter I will refer to this matter again, and give what I am fully satisfied would be a remedy for this so far as the retailer is concerned at least.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |
| B. M. | |
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ¾ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ₩ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

FEB. 9.—The local lumber market is quiet with some degree of firmess, and is not overstocked with desirable qualities. Dealers seem more confident, looking for a considerable improvement in business in the near future. All the deals that can be made in Ottawa and other places for shipment this year are sold at high prices. The good lumber for the United States is either sold or spoken for as many inquiries have been made. The price of coarse goods does not advance much and stocks are still very heavy. There has been plenty of snow in the country and the weather has been favorable for work at the shanties and they are making all the logs that they possibly can. Our prices here show no quotable change, and we continue to quote ex yard as under:

| | |
|---|---|
| Pine, 1st quality, ₩ M | $35 00@40 00 |
| P ne, 2nd " ₩ M | 22 00@24 00 |
| Pine, shipping culls, ₩ M | 14 00@16 00 |
| Pine, 4th quality deals, ₩ M | 10 00@12 00 |
| Pine, mill culls, ₩ M | 7 00@ 9 00 |
| Spruce, ₩ M | 10 00@13 00 |
| Hemlock, ₩ M | 9 00@10 00 |
| Ash, run of log culls out, ₩ M | 20 00@25 00 |
| Bass, " " ₩ M | 12 00@18 00 |
| Oak, ₩ M | 40 00@50 00 |
| Walnut ₩ M | 60 00 100 00 |
| Cherry, ₩ M | 60 00@80 00 |
| Butternut, ₩ M | 25 00@35 00 |
| Birch, ₩ M | 20 00@25 00 |
| Hard Maple, ₩ M | 25 00@35 00 |
| Lath, ₩ M | 1 75@ 2 00 |
| Shingles, 1st, ₩ M | 3 00@ 0 00 |
| Shingles, 2nd, ₩ M | 2 50@ 0 00 |

CORDWOOD.

Stocks are by no means heavy, but ample for all demands, which has not been extra. Retail dealers in many cases are well run down and will require to refill their yards in a short time. As the severe cold weather which has prevailed for some weeks is making large inroads on stocks on hand. The market may be called firm. We quote at the railway wharves, ex cartage, as under:—

| | |
|---|---|
| Long Maple | $ 6 00 |
| Long Birch | 5 50 |
| Long Beech | 5 00 |
| Tamarack | 4 50 |

## BOSTON.

The *Journal of Commerce* of Feb. 7th says:—Trade is moving along quietly and steadily in a seasonable way, with a fair and improving inquiry in view of spring work. Spruce is firm with an upwark look because of the light stock at the mills. White pine is steady. Southern pine is quiet and without material improvement. Choice walnut fully holds its own, as does quartered oak. Cherry and whitewood about hold their own.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₩ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ₩ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 18 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₩ M | 100 @120 00 |
| Black waluut, ⅞ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ⅞-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ⅞-inch | 30 00@32 00 |
| Ash, good, ₩ M | 40 00@43 00 |
| Ash, second quality, ₩ M | 25 00@30 00 |
| Cherry, good, ₩ M | 60 00@85 00 |
| Cherry, common, ₩ M | 25 00@30 00 |
| Oak, good, ₩ M | 40 00@43 00 |
| Oak, second quality, ₩ M | 20 00@25 00 |
| Basswood, ₩ M | 25 00@30 00 |
| Hickory, ₩ M | 40 00@40 00 |
| Maple, Canada, ₩ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₩ M | 38 00@40 00 |
| Shingles, shaved, pine, ₩ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 2 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ₩ M | 0 00@ 2 00 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@18 00 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 22 00@25 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. stripe | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## LONDON.

The *Timber Trades Journal* of Jan. 24th says:—A considerable number of ships have already fixed for next season from Quebec to United Kingdom at 20s. to 21s. for timber (hardwood and white pine) and 55s. for deals. We have not heard of any all deal charters yet, but 52s. 6d. would probably accepted. Of stocks on the other side Booth's pine deals, 1885 cut, are reported as sold to Messrs. J. Burstall & Co. This leaves very few cuts out there unsold either wintering or new. We hear of no transactions in spruce lately at Quebec. The Government contract for next season will, we understand, take some 500 standards or so of 1st spruce out of the market.

Things at the docks are very quiet, and the appearance of the quay sides presents a somewhat dreary aspect, now that the bustle of the shipping season has subsided. We note the Surrey Commercial are still carrying on works of extension, and some alterations are being made in the neighborhood of Lavender Pond and the stave yard end of these extensive docks.

The imports reported this week partake of the usual limited character which we look at this season, and call for no special remark beyond noticing a couple of flooring cargoes from Norway. One, a large steamer, brought a cargo of 490 standards.

Messrs. Simson & Mason's sale was well attended, the country element being very conspicuous amongst the large throng of buyers present. Prices did not, however, rally much, though many of the lots of deals and battens amongst the Holmsund cargoes fetched quite as much as we expected. From the range prices took, we are not able to speak as encouragingly as we could have wished, though we observed that when a really sound lot came under the hammer there were plenty of buyers ready to secure it if they could do so at fair prices; such, for instance, as the 4 in. 3rd and 4th qualities, ex Commodore, which were knocked down at £11 10s. and £9 5s. respectively.

We can hardly take the average values realized for these goods as indicative of the disposition of the market towards high-class Swedish deals, and we should be able speak more authoritatively of the present tendency of prices if such cargoes as we have alluded to elsewhere of this special manufacture were put up for unreserved sale.

The large parcel of Betsiamitz pine offered met with a somewhat slow sale, evidently not taking the fancy of the trade here. Amongst some of the 1st quality we noticed the other day at the docks some fine deals, and if the sorting had been studied more at the mills the result would have shown itself in enhanced prices. Flooring went quite as well as could be expected in view of the heavy dock stocks that the market has to contend against. Flooring in 8 in. widths seems to go badly here in London.

It is stated that 7 in. is getting scarce at the Norway ports, but we do not see the least symptoms of it here, and that special size was in abundance at a recent sale, nor at that of Wednesday did it seem in any special favor. The asking price for really good brands of flooring, first-open-water shipment, as far as we can learn, is on the basis already quoted of £7 10s. for best white 1x7 and 6½, with the usual additions and reductions.

## GLASGOW.

The *Timber Trades Journal* of January 24, says:—The imports have been on a small scale, comprising one cargo teakwood and a cargo of spruce deals, besides some sundry parcels staves, &c., from New York. The spruce cargo has gone into saw-miller's hands direct.

Particulars are appended of the auction sale of deals held here on the 14th inst. It was fairly attended, but largs portions of the goods offered were withdrawn, the bidding not coming up to brokers' valuations.

A sale of log timber takes place this week at Greenock, and on the 28th a sale of deals is to be held here; results of these will more fully indicate the tone of the market.

Excepting some six or seven contracts made with shipbuilders on the Clyde, no new engagements of importance are announced as yet obtained.

AUCTION SALES.

On the 14th inst., at Glasgow, Messrs. Singleton, Dunn, & Co., brokers:—

| | | | |
|---|---|---|---|
| Quebec 3rd yellow pine deals— | | | |
| 13 ft. | 15/25×3 | 1s. 7d. | per c. ft. |
| 12 " | 14/23×3 | 1s. 6½d. | " |
| 12 & 13 " | 11×3 | 1s. 2d. | " |
| 9 to 21 " | 11×3 | 1s. 1d. | " |
| 12 & 13 " | 10×3 | 1s. 1d. | " |
| 9 to 11 " | 10×3 | 1s. | " |
| Do. 3rd spruce deals— | | | |
| 12 ft. | 9×3 | 10½d. & 10½d. | " |
| 14 " | 9×3 | 10d. | " |
| 10 & 11 " | 9×3 | 9½d. | " |
| 6 to 13 " | 10×3 | 10d. | " |
| Dalhousie, N. B., 1st yellow pine deals— | | | |
| 9 to 20 ft. | 7/16×3 | 1s. 3d. | " |
| Do. yellow pine scantlings— | | | |
| 9 to 22 ft. | 4/6×3 | 8½d. | " |
| Do. yellow pine deal ends— | | | |
| 3 to 8 ft. | | 7½d. | " |
| Do. spruce deals— | | | |
| 10 to 21 ft. | 7/15×4 | 11d. | " |
| 11 " 21 " | 13/17×3 | 10½d. | " |
| 9 " 22 " | 12×3 | 10½d. | " |
| 16 " 26 " | 11×3 | 10½d. | " |
| 9 " 15 " | 11×3 | 10d. | " |
| 9 " 23 " | 10×3 | 10d. | " |
| 14 " 26 " | 9×3 | 10d. | " |
| 10 " 26 " | 8×3 | 8½d. | " |
| 10 " 17 " | 7×3 | 8½d. | " |
| Do. spruce scantling— | | | |
| 12 to 23 ft. | 4/6×3 | 8½d. | " |
| Do. spruce battens— | | | |
| 9 to 24 " | 5/9x2 & 2½ | 9d. | " |
| Do. spruce ends— | | | |
| 3 to 8 ft. | 7/14x3 | 8d. | " |
| Mobile pitch pine planks— | | | |
| 2 to 5 in. thick | | 9d. to 10d | " |

## TYNE.

The *Timber Trades Journal* of Jan. 24th says: The arrivals of the past few days have been small in number and amount, only one cargo calling for special notice, that of the Prince Arthur, from Rangoon, with a parcel of teak logs, one ship, evidently a late sailer from Drammen, with prepared floorings, and several of the usual trading steamers from Gothenburg and Christiania. The outlook does not seem to improve as the years roll on, little or no new business is apparent, and so far I have not heard of any contracts having been entered into for f.o.w. shipments.

A slightly better tone is apparent amongst shipbuilders, but it will be some time before it affects the trade to any extent; a few orders have been received, but they are not of very large amount.

## LIVERPOOL.

The *Timber Trades Journal* of Jan. 24th says:—There is but little show yet of the animation which was generally spoken of as likely to mark the opening of the new year, the present condition of business being apparently as slow and dragging as ever it was. Nor do the reports from the country show any marked improvement in the manufacturing districts; hence the consumption of timber, deals, &c., is narrowed down to a small compass, and the railway wharves bear a barren aspect, showing that very little wood is, comparatively speaking, going into the country.

The corporation of Liverpool have accepted the tender of Messrs. Taylor, Pierce, & Co., of this city, for the timber, deals, &c., required for the great waterworks now in course of construction in North Wales for supplying this city and neighboring towns.

Various stocks of Baltic goods have been offered in this market during the past week, but there is no great anxiety displayed on the part of buyers to enter into contracts yet.

LIVERPOOL TIMBER SALES.

On Thursday last Messrs. Duncan, Ewing, & Co. offered a cargo of St. John, New Brunswick, spruce deals and birch for sale by auction, which was fairly attended by the trade as well as customers from the country. The deals sold well, but about one half of the birch timber was withdrawn. The prices realized were as follows :—

St. John, N. B., spruce deals—

| | | £ | s. | d. | |
|---|---|---|---|---|---|
| 16 to 24 ft. | 3×11 | 7 | 5 | 0 | per std |
| 12 " 15 " | 3×11 | 7 | 5 | 0 | " |
| 9 " 11 " | 3×11 | 6 | 2 | 6 | " |
| 16 " 23 " | 3×9 | 6 | 7 | 6 | " |
| 12 " 15 " | 3×9 | 6 | 5 | 0 | " |
| 9 " 11 " | 3×9 | 6 | 5 | 0 | " |
| 16 " 25 " | 3×7 | 5 | 12 | 6 | " |
| 12 " 15 " | 3×7 | 5 | 12 | 6 | " |
| 9 " 11 " | 3×7 | 5 | 5 | 0 | " |
| 9 " 22 " | 3×8 | 5 | 7 | 6 | " |
| 9 " 20 " | 3×10 | 5 | 15 | 0 | " |
| 9 " 19 " | 3×12 to 16 | 6 | 5 | 0 | " |
| Do. deal ends— | | 5 | 0 | 0 | " |

Do. birch—

| | | |
|---|---|---|
| 15½ in. deep | 17d. to 18½d. | per ft. |
| 15 " | 16½d. " 16½d. | " |
| 14 " | 15½d. " 15½d. | " |
| 13½ " | 14½d. | " |
| 13 " | 14½d. | " |

## LEITH.

The *Timber Trades Journal* of Jan. 24th says :—The imports for the past week are as usual at this season very light. Trade is unusually long in getting under way, matters as a rule falling into their ordinary grove before this ; the season has, however, opened very unfavorably, business being exceptionally dull.

On Tuesday Messrs. A. Garland & Roger held a sale by public auction at their yard in the Edinburgh Docks. This being the first sale for the year it was very well attended, and a good deal of business was transacted.

A beginning was made about 1 o'clock with the Miramichi pine deals. As it is now many years since a cargo of this description has been put upon this market, considerable curiosity existed regarding the reception they would meet with. The cargo was of fair average quality, consisting of 1sts, 2nds, and 3rds, and was entirely cleared out with the exception of a few of the 2nds, the prices ranging from 1s. to 2s. 4½d. A few lots of spruce deals were also offered, but did not meet with great favor, as this stuff has never met with a good sale in this district. 1½ white flooring brought 11½d. per superficial yard, but several lots of 1,000 yards were sold at 10⅝d. A large quantity of 6½x2½ white battens marked G R were cleared out at 1-16d. and ⅞d. per lineal foot. Of the great variety of other timber offered a lot was usually sold here and there, although in some instances a few lots of the same description were disposed of.

## AUSTRALIA.

Since our last, on 19th ult., the offerings by auction have been large—more than is required by the trade ; consequently, prices of nearly all all descriptions have declined, the only exceptions being Oregon timber and American dressed lumber, both of which have been scarce, and lighter prices realised.

Business from the yards has been brisk, and the trade report a large and steady demand, which it seems there is no prospect of falling off.

RED DEALS.—Imports : 3,142 standard from the Baltic, and 5,080 pieces from United Kingdom. The arrivals have been Forfarshire, from Skutskar ; Frigga, from Swartvick ; Carl. W. Bowman, Nore, Albatross, and Orient, from Gefle ; New Zealand, and Sumarlide, from Soderham ; Mathilde, from Sundswall ; Fritzoe, from Hartlepool. Sales by auction have been cargoes ex Carl Phil, and Hilma, and portion ex Wm. Le Lacheur. The cargoes ex Nore and Albatross were sold privately to arrive, and have gone into consumption. Arrivals for the month are heavy, and prices lower.

SPRUCE DEALS.—Imports : 100 pieces (Baltic White.) This line arrived per Njaal, from Christiana, and was sold by auction on 12th instant at 5½d. for 10 x 3—5 cut, and 5d. for 3 cuts. No other public sales have transpired during the month.

OREGON TIMBER.— Imports : 1,352,322 feet super. The arrivals have been Wm. Renton, from Port Blakely, W. H. McNeil, from Moodyville. Both these cargoes are advertised for sale on 19th instant.

LUMBER.—Imports : Clear pine, 121,132 feet super : white pine shelving, 99,324 feet super ; T. and G. ceiling, 8,235 feet super. The arrivals have been R. R. Thomas, and Mohican, have all been sold at auction at an advance on previous prices, and the small line of clear pine, per Moses B. Tower, is advertised for the 19th inst.

REDWOOD.—Imports : Nil.

FLOORING AND WEATHERBOARDS.— Imports : 9,381,190 feet lineal. The arrivals have been Njaal, Wladimir, and Ole Moller, from Christiana ; Cambrian Duchess, Regina and Augusta, from Frederickstad ; and Berwickshire, from Montrose. Sales by auction have been ex Magne, Star of the East, Njaal, Berwickshire, Darling Downs, Drumburton, Thor and Aviemore. Prices realized at sales earlier in the month have not been maintained. The following are prices for different lines, viz. :—Red, 6x1½, 11s. 6d. to 10s. 3d. ; 6x⅞, 8s. 3d. to 7s. 9d. ; 6x¾, 6s. 6d. to 6s. 3d. ; 6x½, 5s. 3d. to 4s. 9d. ; 4-weatherboards, 6s. 3d. to 5s. 6d. White, 6x1½, 8s. 9d. to 8s. 3d. ; 6x⅞, 8s. to 7s. 6d. ; 6x¾, 5s. 6d. ; 6x½, 5s. 3d. to 4s. 8d. ; 4-out weatherboards, 6s. to 5s. 6d.

KAURI PINE.—Imports : 704,688 feet super. The arrivals are Wenona, Clansman and Claribel, from Kaipara. The cargo, ex Wenona, is advertised for sale on the 19th inst.

CEDAR.—Imports : 249,600 feet super. The arrivals have been ex May Newton, from Richmond River, and usual steamers. Prices show no improvement on those obtainable last month.

DOORS.—Imports : 1,825. These arrived ex Mohican, from Boston, and Leura (steamer), from Sydney. Sales by auction have been made of a greater portion ex Mohican.

LATHS AND PICKETS.—Imports : Laths, 8,534 bundles ; pickets, 2,387 bundles. Sales by auction have been made of spruce and Baltic laths, and Oregon and Redwood pickets.

SLATES.—Imports : 404,316. No public sales during the past four weeks. 22x11 blue Bangor Penrhyn have been sold privately at £11.

PLASTER.—Imports : 550 barrels. No private sales have come under our notice, by auction. King's Windsor Mills Plaster has been sold publicly at 13s. per barrel.

CEMENT.—Imports : 7,193 barrels. No sales of consequence are reported, and prices remain unaltered, at 13s. 6d. to 12s. 9d. for best brands.

GALVANIZED IRON.— Imports : 957 tons. There have been no sales by auction. Several lines (best brands) have been quitted privately at current rates, viz. :—£18 15s. to £18 2s. 6d.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3 ; T. and G. flooring at per 100 feet running ; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 feet super ; Kauri pine and cedar logs at per 100 feet super ; laths, pickets and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

**A Bargain in Corner Lots**

is what most men desire, but to keep from filling a grave in a cemetery lot ere half your days are numbered, always keep a supply of Dr. Pierce's "Golden Discovery" by you. When the first symptoms of consumption appear lose no time in putting yourself under the treatment of this invaluable medicine. It cures when nothing else will. Possessing, as it does, ten times the virtue of the best cod liver oil, it is not only the cheapest but far the pleasantest to take. It purifies and and enriches the blood, strengthens the system, cures blotches, pimples, eruptions and other humors. By druggists.

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BAKING POWDER.

DOMINION SILVER MEDAL

At Ottawa Exhibition, 1884. It is the most economic and the best in use. Perfectly Pure. L20-1y

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CHAS. M. WHITLAW, Manager.

OFFICE : 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

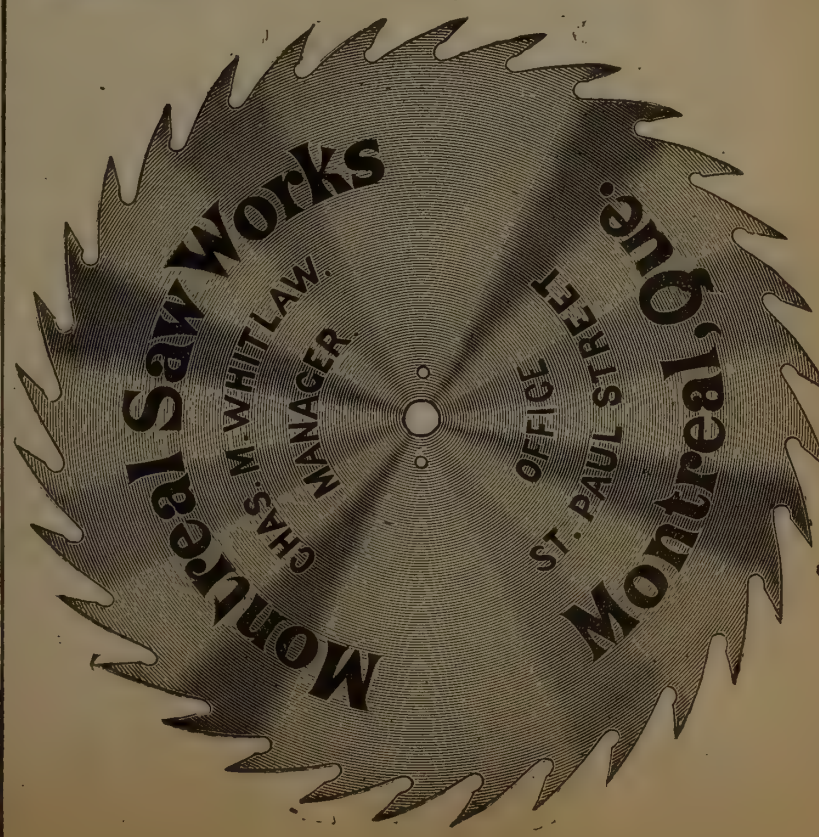
TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.

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THE INTERNATIONAL

# TENT & AWNING CO.

**184 Sparks Street, Ottawa.**

MANUFACTURERS OF

# LUMBERMEN'S TENTS

*The Cheapest and Best in the Market!*

32 First Prizes AND 6 MEDALS.

AT HALIFAX AND TORONTO, *1883.*

Tents, Flags, Tarpaulins, Waterproof Goods, Camp Furniture, etc., etc.

***Estimates for Circus Tents, Range Marquees, Hand-made Sails, etc., furnished on application. Liberal Discount to Large Buyers.***

## PORTABLE CANVAS BOATS MADE TO ORDER

*Send for CATALOGUE* AND PRICE LIST.

SEE OUR NOVELTIES IN Camp Furniture!

**At Toronto, Ont., and St. John, N.B., we made the best Display of Tents ever shown in Canada—and we never substitute an article inferior to sample in filling orders.**

**We control "THE LATOUR PAT." for Camp Furniture, the best on earth. The only Gold Medal ever given for this class of goods was awarded to the Latour Camp Furniture at Toronto in 1882.**

## SAIL-MAKING.

**We have secured the services of the best practical sail-maker in Canada. Orders in this line will receive prompt and satisfactory attention, as is usual with all orders entrusted to us.**

**Agency for the WILDERMUTH BED SPRING, the best in the Market.**

A. G. FORGIE, MANAGER,

## International Tent & Awning Co.,

***184 SPARKS STREET, OTTAWA.***

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*Something New in Leather Belting*

**To Mill Owners, Lumbermen, Manufacturers**

***USE ONLY***

# Dixon's Patent Lap Joint Star Rivet Leather Belting

To be had only from

F. E. DIXON & Co., 70 King Street East, Toronto

**Send for Circulars and Price Lists.**

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CHAUDIERE, - OTTAWA,

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# LUMBERMANS' TOOLS!

**Which took every honor awarded at the Centennial Exhibition.**

***THE CELEBRATED***

## Lightning Cant Dog.

PETER ROBERTSON, Chaudiere, Ottawa.

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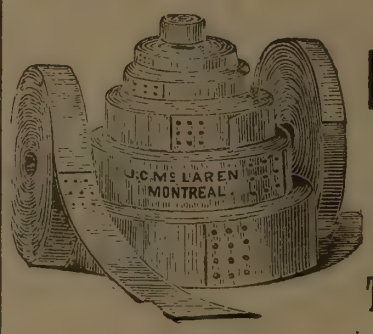
# OAK TANNED BELTING

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**Best Belt ever offered**

***IN CANADA***

*EVERY BELT GUARANTEED*

The Best Mills in the Country use it.

QUALITY *is what I am at, the result being the Generous Support of all Manufacturers.*

For Discounts and Terms, Address

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## MONTPELIER, VERMONT,

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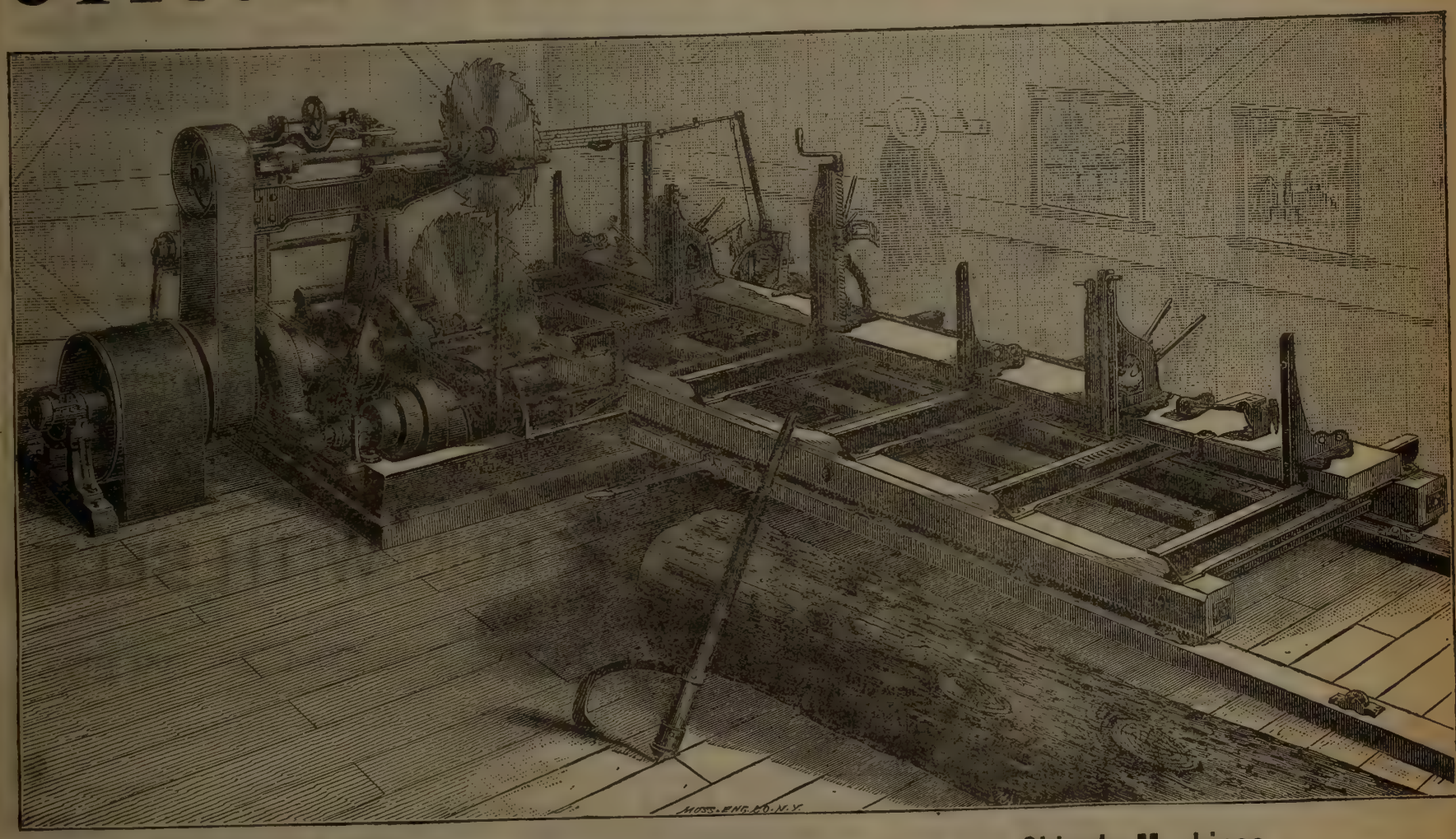

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# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

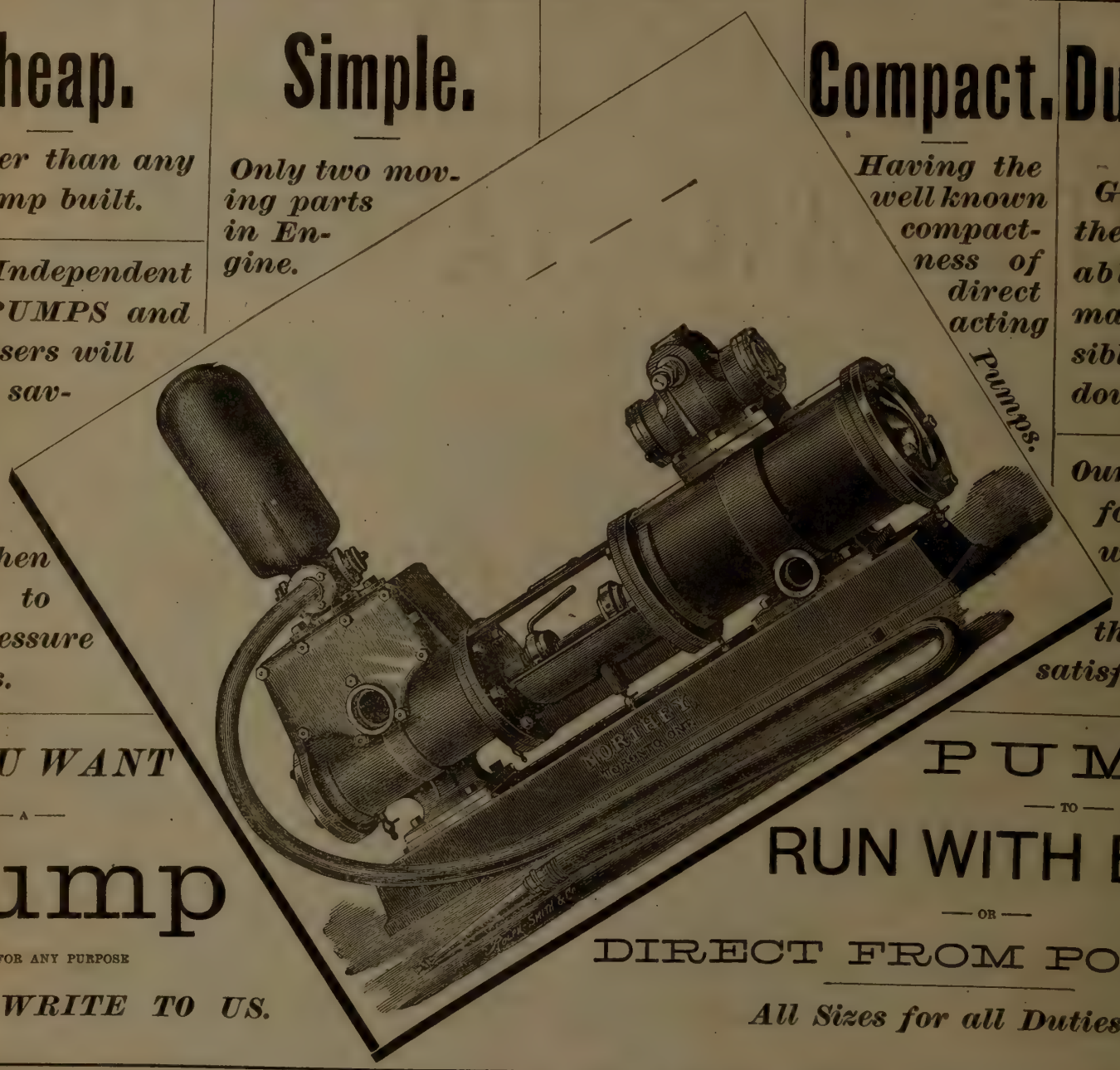
**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

**Simple.**

***Only two moving parts in Engine.***




**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

***IF YOU WANT***

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☞ ***WRITE TO US.***

**PUMPS**

— TO —

**RUN WITH BELT**

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**DIRECT FROM POWER**

***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

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160 Sparks Street,

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## STILL RETAINS THE LEAD

Have been awarded every Medal ever offered at Exhibitions in Canada for our Lines of Goods, notwitstanding the misleading advertisements of unscrupulous firms claiming awards, medals, &c., which they have never received. See letter from H. J. HILL, Esq., Secretary Toronto Industrial Exhibition Association, below. This year at Toronto, Montreal and Ottawa Exhibitions, we have been awarded

10—MEDALS—10

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# TENTS, MARQUEES,

*And CAMP FURNITURE.*

## Lumbermen, Contractors and Surveyors

***And other large buyers, offered Special Inducements.***

New Illustrated and Descriptive Catalogue mailed on application.

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Are without Doubt the BEST and CHEAPEST in the Market.

## National Manufacturing Co. 160 Sparks St. Ottawa

P. O. BOX 345.

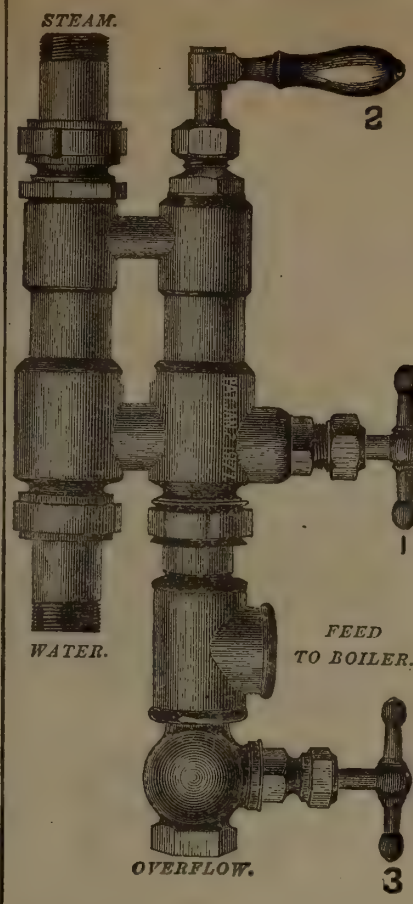
OFFICE OF THE INDUSTRIAL EXHIBITION ASSOCIATION,
TORONTO, MARCH 10, 1884.

*The National Manufacturing Co'y, Ottawa:*

GENTLEMEN,—In reply to your enquiry, I beg to say that the highest awards made at the Industrial Exhibition for the years 1881, 1882, and 1883, for Tents, Marquees and Flags, were to your Company, being a Silver Medal for each year. Last year, 1883, was the first in which a medal was specially offered for Camp Furniture and Equipages, and it was awarded to the National Manufacturing Co'y, of Ottawa.

I am, your respectfully,
H J. HILL, Manager and Secretary.

6mL20

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**No adjustment required for varying Steam Pressures.**

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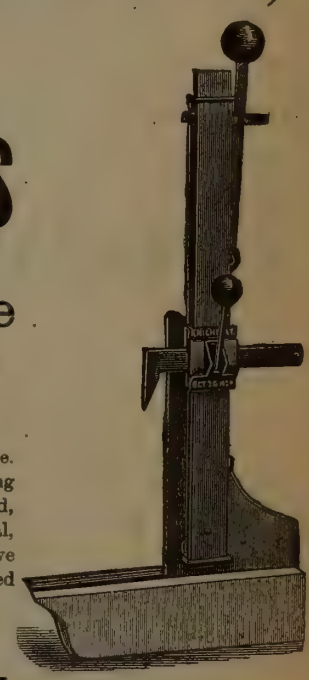
## The Sawyer's Favorite

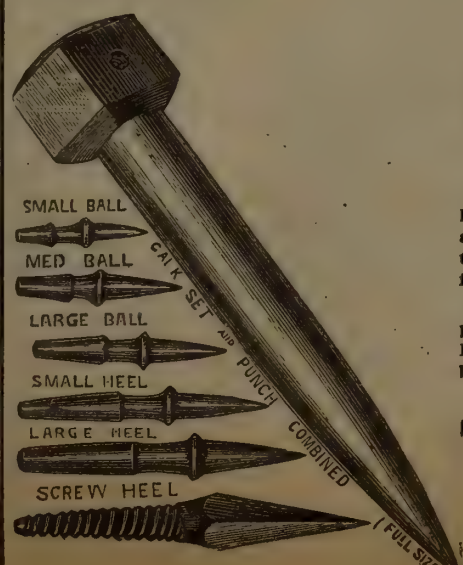
**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Mfilldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Cants cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

Manufactured by HUGH GIBSON, CHATHAM.



EXCELSIOR DOG.

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**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

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124 AND 126 QUEEN STREET, - - MONTREAL.

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

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Ira Gould & Sons, City Mills,
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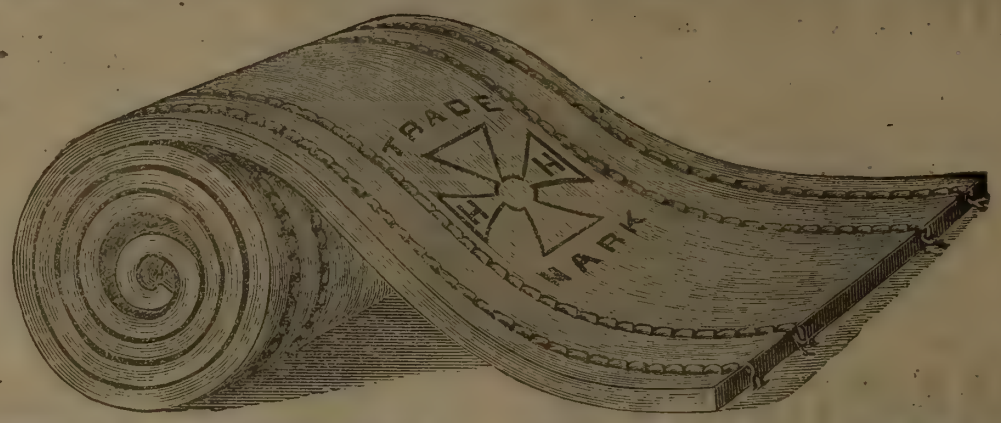
*Harris, Heenan & Co.*

Dear Sirs.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




TESTIMONIAL.

Peck, Benny & Co., Canal Horse Shoe and Nail Works, Montreal, 16th Nov. 1894.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT.
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# LEATHER BELTING!

*The Best, therefore the Cheapest, Belt in the market.*
*Replaces, when used, all others.*
*More Pliable and Durable, especially at the splices.*
*Stretches but little, always retains it original width.*
*Superior for Cross or Double Belts.*
*Runs straight and true, does not start at the laps.*
*Single equals medium double.*

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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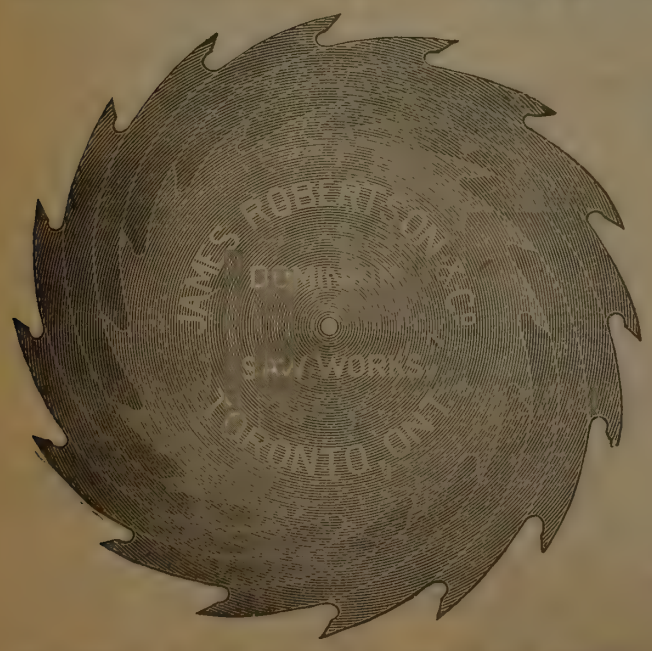
## JAMES ROBERTSON & CO.

## 253 to 267 KING ST. WEST, TORONTO, ONT.

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*Prices on Application.*

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Circular, Shingle, Gang, Cross Cut,
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## Anti-Friction Babbit Metal

IMPORTERS AND DEALERS IN

Band Saws, Emery Wheels, Files,
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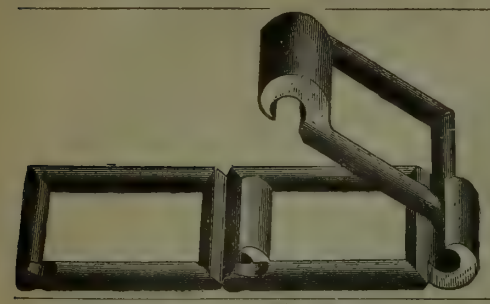
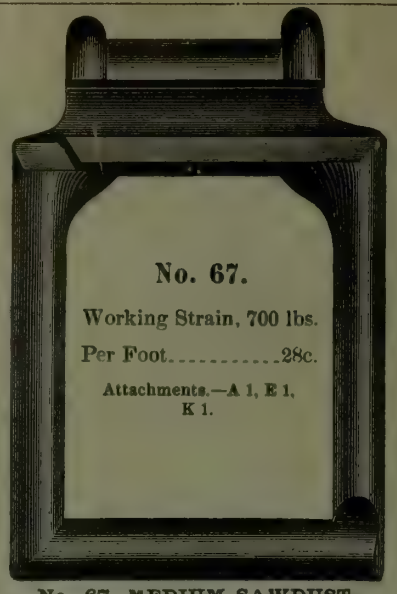
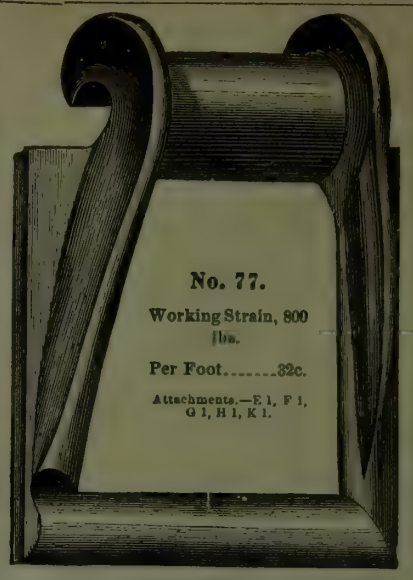
For CONVEYING, ELEVATING, and TRANSFERRING every Product of a Saw Mill, into, through and out of the mill.



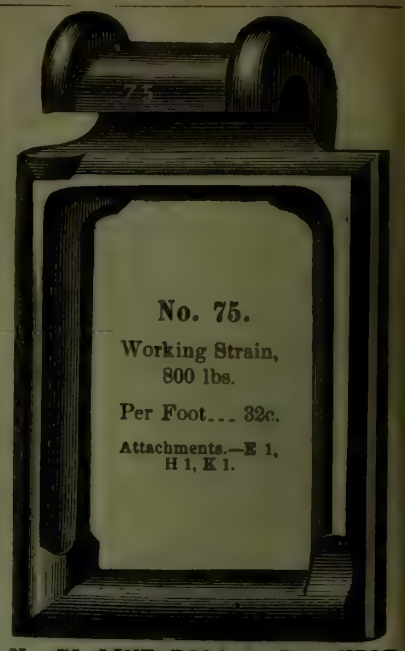
No. 45—15 cents per foot and 55 used for light Sawdust Conveyors.



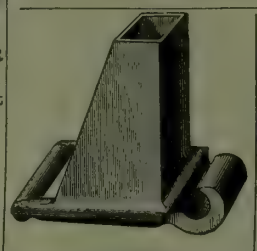

No. 67—MEDIUM SAWDUST CONVEYOR CHAIN.




No. 77—CONVEYOR AND LIVE ROLL CHAIN.




No. 75—LIVE ROLL AND DOUBLE STRAND ELEVATORS.



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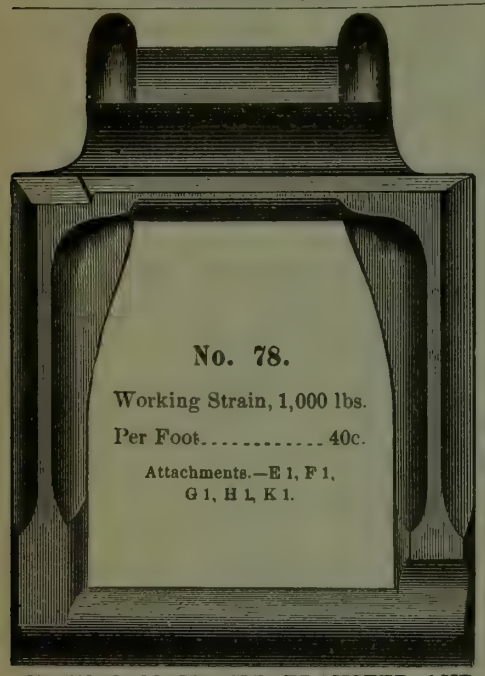


No. 78 & 88—HEAVY TRANSFER AND LIVE ROLL CHAIN.

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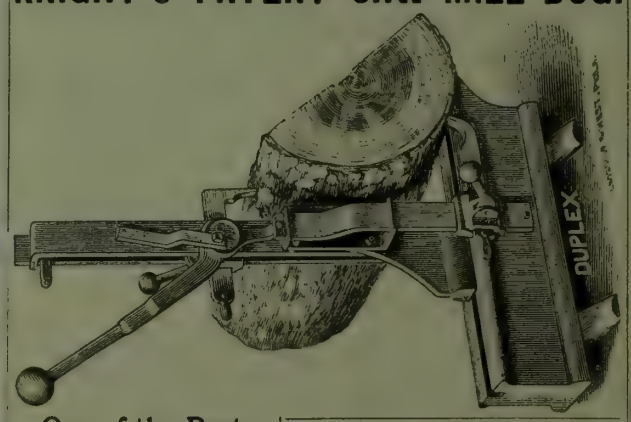


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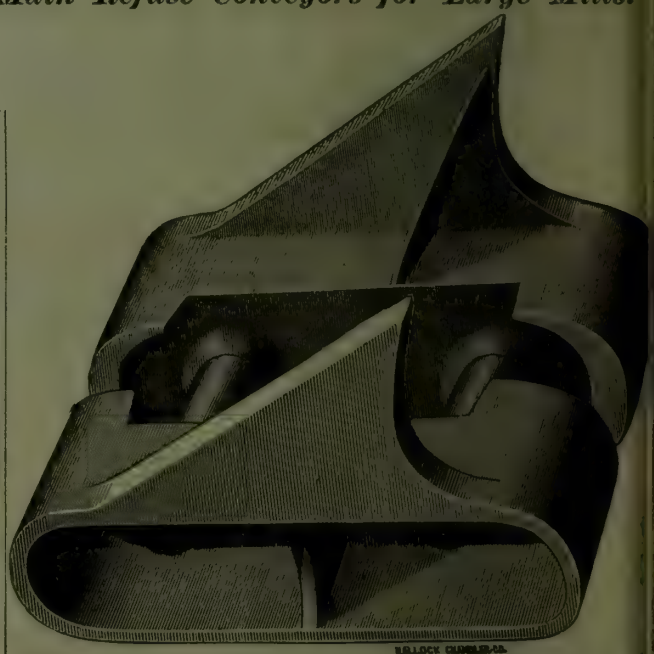

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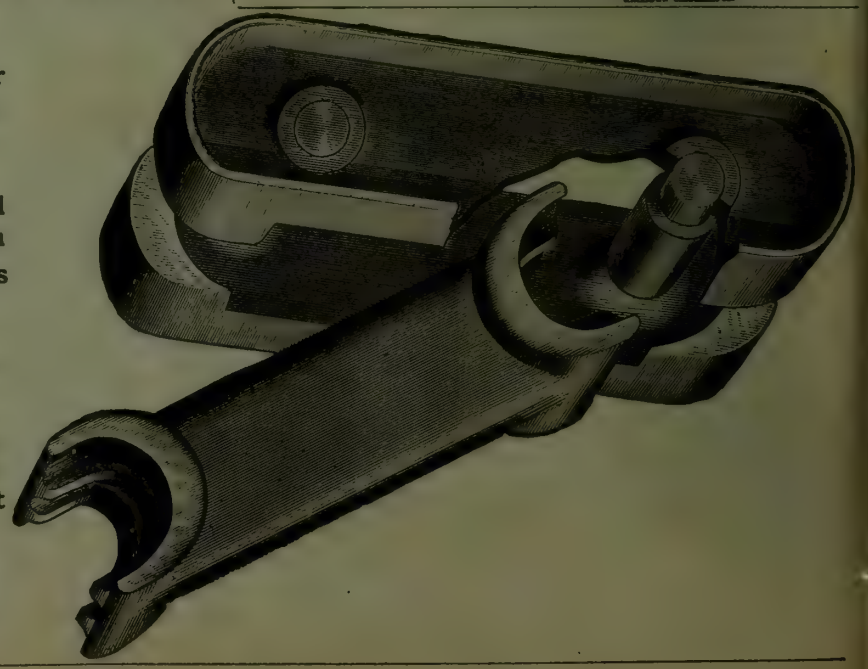

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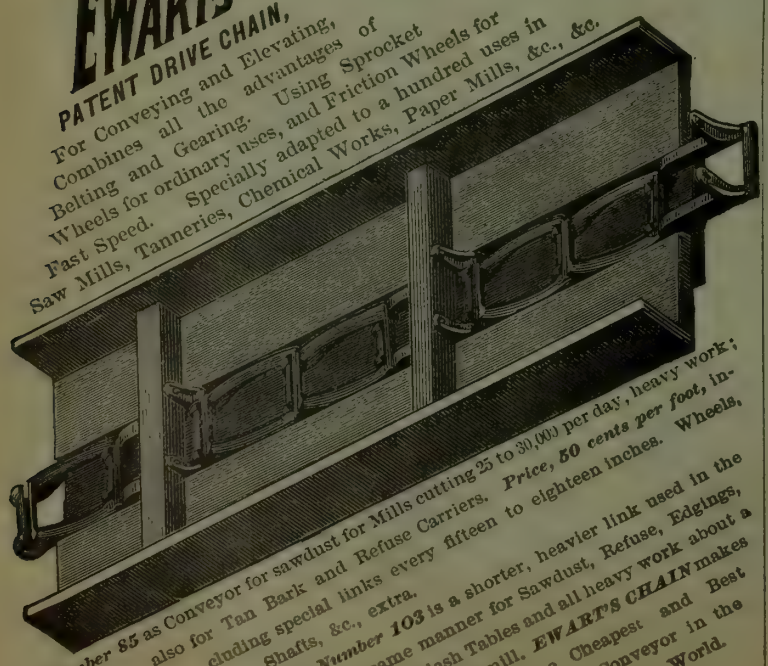

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VOL. 5. PETERBOROUGH, ONT., MARCH 2, 1885. NO. 5.



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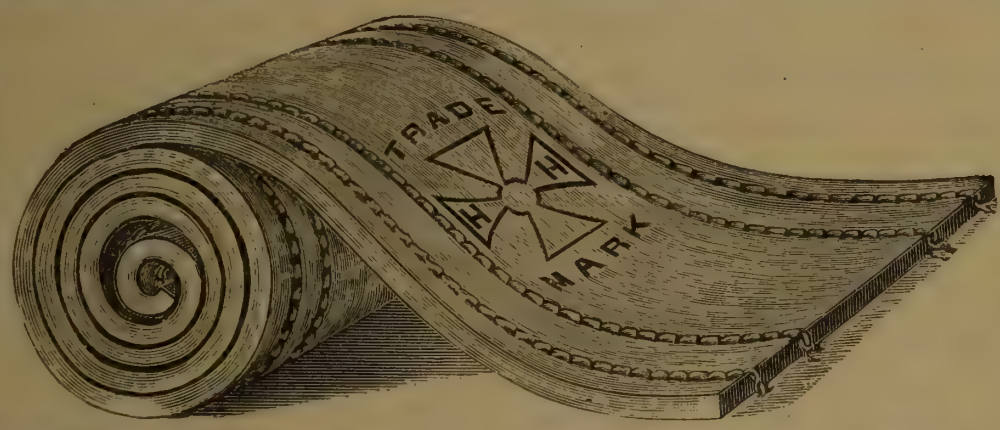


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## A NATIONAL SCHOOL OF FORESTRY.

I need probably make no apology for calling attention to the subject of our Woods and Forests; or at any rate, if any is due, it certainly is not from any want of importance in the subject, but because I am not so well qualified as I would wish to discuss it effectively. The losses which have recently pressed with so much weight upon landowners, will not be altogether without some compensating advantages if they induce us to devote more attention to subjects connected with the land, to consider whether our system of agriculture may not be improved, to establish agricultural schools, to facilitate the transfer of land, and, last not least, to examine into our system of management of woodlands and forests.

So much, indeed, has forestry been neglected, that in Scotland the word suggests deer rather than trees, while in England it is associated with one of our greatest provident institutions.

In endeavouring to call the attention of my countrymen to the present condition and possible improvement of our woodlands, I am not referring only, or even mainly, to Crown forests, which form but a small part of the subject. There are altogether in round numbers 2,800,000 acres of woods and plantations in this country, so that the subject is one of vast importance. Even, however, as regards Crown forests, the subject is one of considerable interest. In the year 1854 a committee of the House of Commons sat to inquire into the management of the Crown forests, and the state of things they found was most deplorable. They reported that in the New Forest, out of 2,535 loads felled, consisting of 3,115 trees, only 936 loads were accepted by the Surveyor of the Navy; so large was the proportion of faulty to sound trees. Again, with regard to Delamere Forest, they reported that "the committee feel themselves bound to report that the condition is most unsatisfactory." In the Forest of Dean "a very large proportion indeed of timber..... was unfit for the service of the navy; it was rotten and deficient." This latter forest now appears to be much better managed, although the New Forest is, economically speaking, in a very sad condition. This is to a great extent due no doubt to previous mismanagement and neglect. It would be satisfactory to have every ten, or at any rate every twenty years, some independent report on the present state of our national forests. This, however, is but a small part of the question, and it is much more important to consider whether the general management of woodlands in this country might not be improved; whether we might not profit by the experience and valuable information of the great foreign forest schools.

It is estimated, as I have already mentioned, that there are altogether in this country some 2,800,000 acres of woodlands, but our own production is very far short of our requirements, and the annual imports of wood are no less than 3,000,000 cubic feet, worth from £15,000,000 to £20,000,000 sterling. Now Mr. Howitz, in his interesting report, for which we are indebted to Dr. Lyons, estimates the amount of land which might be profitably planted in Ireland at 5,000,000 acres, and Mr. Boppe, in his memoir, recently prepared for the India Office, calculates that, notwithstanding the great extent of land which has been of late years planted in Scotland, there "still remains 5,000,000 to 6,000,000 acres capable of furnishing valuable forests." Lastly, the extent of forest land in India and the colonies has been estimated at no less than three hundred and forty millions of acres.

A remarkable illustration of what may be done by judicious and systematic planting is afforded by the French "Landes." This region, which thirty years ago was one of the poorest and most miserable in France, is now one of the most prosperous. The increased value is estimated at no less than 1,000,000,000 francs. Where there were thirty years ago only a few thousand poor and unhealthy shepherds whose flocks pastured on the scanty herbage, there are now saw mills, charcoal kilns, and turpentine works, interspersed with thriving villages and fertile agricultural land.

Our own experience in India is another striking case. The institution of the forest department in India was first placed on a scientific footing in 1863, when Dr. Brandis was appointed Inspector-General of forests; but it was not till 1867 that his plans for the training of foresters for India were matured and adopted. And what has been the result? In 1870, the forest revenue of India was £357,000, with the net income of £52,000. In 1880 the gross revenue had reached £545,000, while the net income had increased from £52,000 to £215,000.

In the sience of forestry we are, I fear, far behind many foreign countries, especially France and Germany; and it is surely very desirable that our landed proprietors should benefit by the experience which other nations have accumulated. In Scotland it is possible that the management of forests is better understood than in England; but it is very questionable whether, even if Scotch foresters were available in sufficient numbers, an English land owner would be wise to place his woods under any one whose whole knowledge had been acquired by the practical management of Scotch forests, because the condition of the two countries are so different. Moreover, it is probable that even Scotch foresters have much to learn.

M. Boppe, one of the highest French authorities on forestry, has recently visited our English and Scotch forests, and his report, through short, is most suggestive. On the whole, he concludes that even in Scotland, though in that country forestry may be more advanced than in England, "rein n'a ete fait pour donner a la propriete boisee sa veritable situation economique." His expression deserve all the more attention, because from the kindness and hospitality he everywhere experienced, from the pleasant character of his visit, and his natural courtesy, he evidently wished to make the best of everything. Still it is easy to read between the lines, and while his report is full of praise of the soil and the climate, the ability and hospitality, the industry and skill of the people, it is clear that in his judgment the system of forestry is archaic, expensive and obsolete.

I am aware that Scotch foresters would dispute many of M. Boppe's criticisms; but the very differences between these high authorities are additional reasons for further study.

Moreover, as regards the main recommendation contained in M. Boppe's report—namely, that one or more forest schools should be erected—our highest authorities entirely concur. The *Journal of Forestry* has ably and repeatedly called attendion to the subject. *The Journal of Horticulture*, of May 3, 1883 observes "that it is little less than deplorable to witness the miles of woods that are practically valueless from a commercial point of view, whereas under skilled supervision they might yield a substantial revenue to their owners, and in addition be an advantage to the trading and agricultural community." Colonel Pearson, who speaks with much authority on the subject, because he has for some years represented the India Office at the great French School at Nancy, in an able paper, read before the Society of Arts, has strongly advocated the same view. He observes that in his opinion our forests and woodlands are very far from bning in a satisfactory condition. There is no provision for the renewal of the timber. When the existing trees are cut down there are none to replace them, and when once a forest disappears, it can only be reinstated at a very large expense and great loss of time.

Mr. Brown, in his standard work on Forestry, observes:—"If our forests had been judiciously managed, we should not find so great a part of the woodlands of Great Britain in the unprofitable state in which they are.....The subject under consideration may be summoned up thus: Foresters, generally speaking, are not possessed of sufficient education to give them capacity for carrying out improvements in arboriculture; and until we have a better educated class of men reared to the profession, a large portion of our woods must remain a comparatively unprofitable part of the resources of landed property." Mr. Cruickshank, in his "Practical Planter," sums up the matter very tersely when he says:—

"Nothing is more common than to see trees, which are proper only for moist soils, placed in the most parched situations, and those which nature has adapted for dry ground alone, planted in swamps and morasses. Those species that would flourish on a light soil, are often absurdly stationed in the most tenacious clays, where they can make little progress; while those that would have attained a large size in stiff land, are planted in gravel or sandy loam, as if for the express purpose of making them dwarfish, unsightly, and entirely worthless."

Mr. Boulger observes that as regards the New Forest, 49,000 acres will before very long be nothing but a worthless barren heath, unless a change of system is introduced. Mr. Grigor, in his work on Arboriculture, mentions many cases in which heavy losses have been incurred through ignorance of the management and formation of woods. He tells us that, in the last twenty years, many tons of seed of the larch and Scotch fir have been imported from the Continent and sown in Scotland, though such seed produces plants which are too delicate for the severer climate of the North. When we consider what a ton of seed is, we see what a loss of time and labor is here indicated. He mentions cases of large plantations, belonging to different owners, in which the American spruce, a dwarf tree, was planted by mistake for the common or Norway spruce; another in which the *Pinus montana*, another dwarf species, was carefully planted at regular distances, as the trees which were ultimately to form the forest after the nurses had been removed. He tells us that he has seen acres and acres absolutely ruined by mismanagement, by bad methods of planting, of pruning, and of thinning.

M. Boppe, in the report to which I have already referred, admits that in Scotland arboriculture, as opposed to forestry, has been brought to great perfection; and he adduces the case of a wood of splendid oaks with an undergrowth of rhododendron, constituting at present quite a fairy-like domain; but his experienced eye could not but look forward to the time when the oaks would all be felled, and there would be nothing to take their place. In fact, one fundamental difference between the management of woods and forests in England and France seems to be that we plant, then thin, and then finally cut down the trees. The French foresters, on the contrary, make it an essential part of their system that the forest should renew itself. In our country they observe there does not exist "aucun lien entre la foret du passe et celle a refaire pour l'avenir."

M. Boppe mentions with much pathos such a forest in ruins which he visited. The trees had all been cut down for railway-sleepers; the ground was covered with the blackened remains of roots torn up and burned, reminding him of an "immense ossuary," and the proprietor was replanting at a great expense, and with much loss of time, both of which might, in his opinion,

to a great extent have been saved under a better system.

Again, M. Boppe calls attention to the presence of sheep, as in his judgment inflicting a great injury on the Scotch forests, because they effectually prevent the trees from renewing themselves. Not that he would exclude them altogether. He observes that a forest requires 120 years to come to maturity, and that sheep ought to be excluded during the first twenty, when the trees are still small, and also during the last thirty, when they ought to be renewing themselves. This, however, leaves seventy out of the 120, or more than half the period during which sheep do no injury, and may safely be admitted. Moreover, he points out, that in a forest so treated, the young trees kill off the heather and gorse, and the herbage is thereby so much improved that he believes sheep can be more profitably kept in a forest so treated, than if they are allowed to be continually present.

Another point of the greatest importance is the association of suitable species. No foreign forester would think of planting oak by itself. But in our country, sometimes side by side and on identical soil, you may sometimes see oak alone, sometimes larch alone, somttimes oak and Scotch pines, sometimes oak and beech, oak and larch, or oak and chestnuts. It is clear that most of them are economical errors.

Now where, let me ask, can a country gentleman who owns woodlands obtain practical advice as to their management, or procure trained assistance? Where can he send his son so that he may learn something of forest management? We have no forest school in this country, nor any class of persons specially trained and instructed in the formation and management of woods. Private enterprise cannot supply the want, because it is necessary that a forest school should have forests connected with it. In this respect, therefore, the concurrence of Government is essential.

It appears to be a very strong argument in favor of the establishment of a forest school in this country that at present the young men who are going out to manage our Indian forests have to be sent for instruction to the great French forest school at Nancy. No doubt that is a most excellent institution, and we are indebted to the French Government for the courtesy with which they have received our English students; but the system of education given there naturally contains some branches—as, for instance, the study of French law—which are not adapted to English students, while there are many other considerations such as climate, which render a continental school less suitable for English requirements. I may add that no young Englishmen, as a matter of fact, go there excepting those intended for the Indian service.

All the great conntries of Europe have established forest schools. Austria, Italy, Switzerland, France, Germany, Hungary, Russia, Sweden, Denmark, Spain, even Roumania, have done so. Great Britain is the only exception, and it is surely very remarkable that it should be so, when we consider that this Empire is probably the most richly endowed with woods and forests of all the countries of the world. Our Colonies contain immense tracts of forest land, much of it of very great value, and estimated on high authority at not less than 340 millions of acres.

The great influence exercised by of forests on climate seems now to be generally admitted. It is mainly by the destruction of trees that Asia Minor, Palestine, Northern Africa, and so many other countries, once rich and populous have been reduced almost to the condition of cinders. In this country, indeed, we need apprehend no such danger, but as regards India the case is different.

Sir Richard Temple, speaking of Indian famines, has recently expressed the opinion that "one of the causes, probably the main cause, of the drought was the destruction of forests in past times." He added that "when he went to India he was supposed to have had a liberal education, but he had never heard a word about forestry, and he feared that many of those who came after him were not much better off in this respect."

For our colonies, then, the establishment of a good forest school here would be of very great importance. A judicious management of their woods would add considerably to their income. French foresters have recently been sent to the Cape of Good Hope and Cyprus, it having been found impossible to obtain any countrymen of our own with the necessary knowledge.

The arguments in favor of establishing a forest school in this country seem, then, to be very strong.

Perhaps, however, I shall be asked why the establishment of such a forest school, if it be so urgently needed, should not be left altogether to private enterprise. The reason, however, is obvious. A properly equipped forest school must have attached to it a large extent of forest, in various stages, and having a variety of climates and soils. This, it is obvious, no private institution can supply. I do not, however, say that a forest school must necessary be a Government institution. On the contrary, I should be glad if such colleges as Cirencester and Downton could be made available for the purpose. Possibly some arrangements might be devised by which under careful regulations the professors and students attached to them might periodically visit our national forests, just as the French and German students are taken to their great national forests. There is one substantial difficulty, which only, however, brings out more strongly the necessity for some such step. We have, M. Boppe declares, no single piece of woodland in the country which would serve as a model. Of all our national woodlands those known as Lord Gage's woods are perhaps most suitable; and if the authority in charge of them could be appointed Professor of Forestry at Cirencester or Downton, perhaps that might be the best course to adopt. This, however, I only throw out as suggestion.

Surely also it would be very desirable that professors of forestry should be appointed at our great universities. Considering that most of the landed proprietors of England are educated at Oxford or Cambridge it is, to say the least of it, unfortunate that their attention should never even be directed to a subject in which they are so vitally interested. I do not mean that they should receive necessarily any thorough system of instruction in forestry; but the devotion of a very short time would suffice to give them an idea of the nature and the importance of the problem, of the manner in which it affects their interests, and the sources from which they might subsequently derive more definite information.

There is another incidental advantage which may just be alluded to, although I will not dwell on it—namely, the new career it would afford to young men. More than one of us, I dare say, have asked ourselves, "What shall I do with my son?"

I have just mentioned in illustration that lately the Cape of Good Hope Government determined to appoint a forestry Commissioner with an income of £800 a year. They could not, however, find any qualified Englishman, and were obliged to appoint a French gentleman even though he could not speak English.

Until some such course is adopted it will, I fear, continue to be true that, as the House of Commons Committee of 1854 reported, timber is "everywhere worse managed than any other species of property." On the other hand, the high authorities whom I have quoted have expressed a very strong opinion that we might make our woodlands much more profitable, and they show one step which is a necessary preliminary.

Last year, when I called attention to this question in the House of Commons, Mr. Courtney, on behalf of the Government, promised that they would give it their serious consideration. If they cannot themselves take up the question, I would urge them to appoint a Committee or commission to inquire into the whole subject. Averse as I am on general principles to Government interference with private enterprise, the objection does not seem to apply here. I repeat that I do not at present ask for a school; it would be preferable, I believe, if it be found possible, to utilize the national forests in connection with Cirencester, Downton, or some other similar institution; but I would earnestly press on the Government and the country the great need of some such step, the result of which, I feel satisfied, would be made more remunerative; large tracts would be profitably planted; we should create additional employment for the people; considerably increase the incomes of our land-owners; and make a substantial addition to the wealth and resources of the nation.—*Sir John Lubbock, in the Contemporary Review.*


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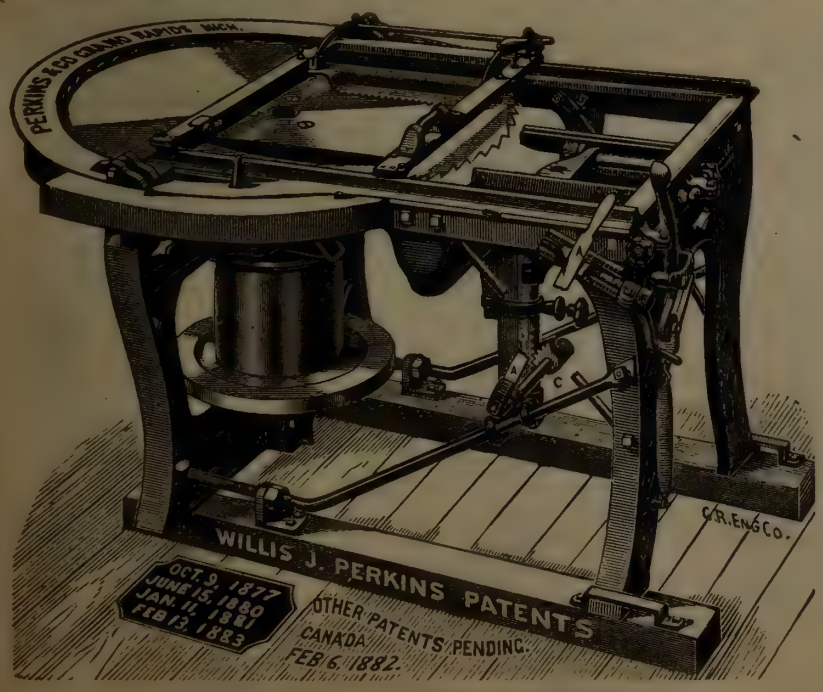
We are now introducing to those requiring Small Mills our IMPROVED SEMI-PORTABLE MILL, got up strong and durable, and are now adding to the many Machines for cutting Lumber. MILNE'S IMPROVED HEAVY BAND SAW for cutting Lumber out of large logs. The small carfe these Mills take out in using a No. 18 Gauge Blade, is a very important point in saving Lumber, besides the small amount of power required to drive it, making it a favourite in sawing lumber—capacity from 25 to 30 thousand per day.

We are prepared to submit plans and specifications, together with any information our many years of close application to the Saw Mill Business may have suggested to us; also when required to enter into contract for supplying the machinery and all material complete.

Communication from anyone intending to build Saw Mills solicited.




## GRAND TRIUMPH!

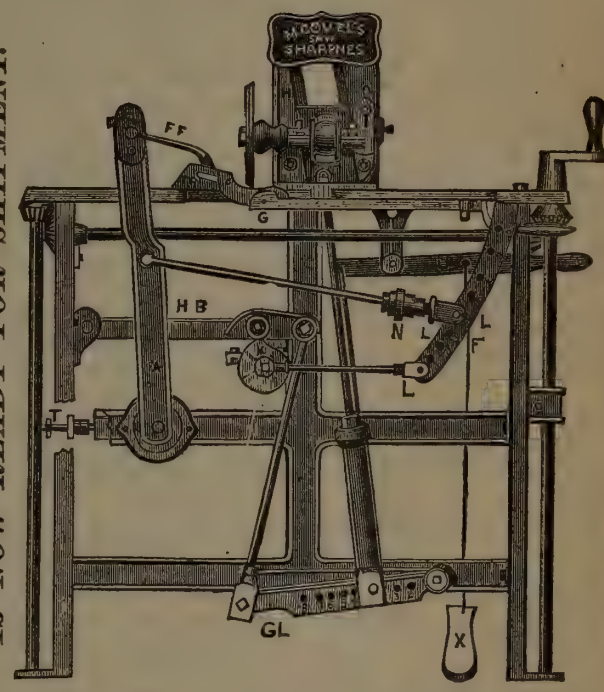
## WILLIS J. PERKIN'S DROP TILT

The only Horizontal Saw Machine on which a thick slab can be cut from the bolt. SECOND CUT ALWAYS A SHINGLE. Knots, rots, hearts, bolt squared rift-ways, and all irregularities cut off at one clip. This improvement will pay price of the whole machineevery season by increase of quality and quantity cut.

OUR SPRING STOCK OF

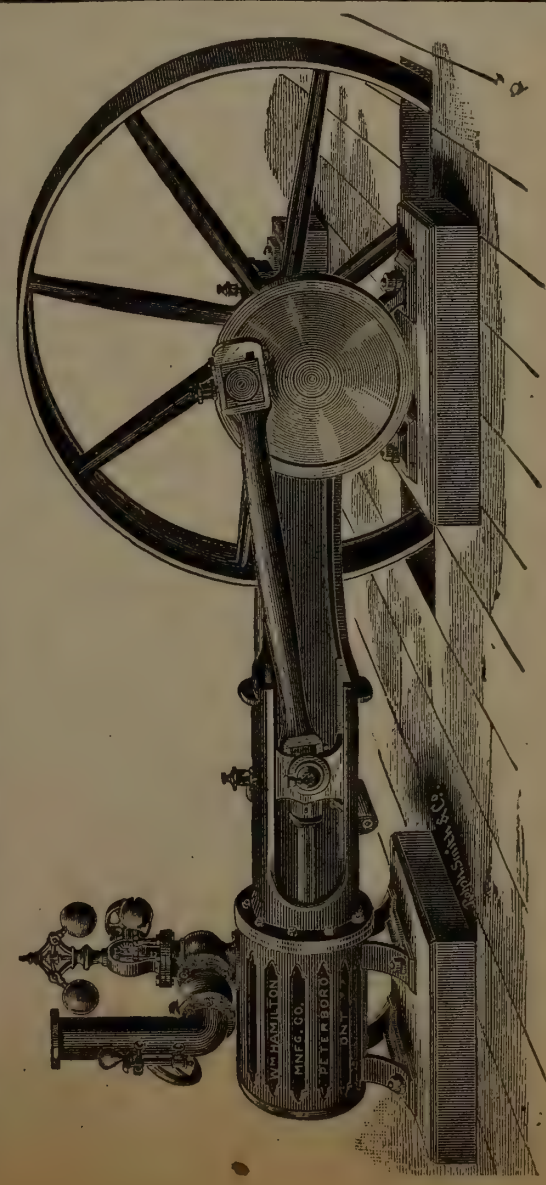
## The M. Covel Patent Saw Sharpener

*IS NOW READY FOR SHIPMENT.*




*They are now so well-known to the Lumberman, that their utility requires no comment.*

## ENGINES AND BOILERS.




*This Cut represents our SAW MILL ENGINE, of which we make the following our Standard Sizes, 12x16, 16x20, 18x24, 20x24 and 24x80, built Strong and Substantial for Heavy Work.*

## SOUTHERN WOODS.

New Orleans may be from her position, one of the great, if not the greatest, centres of the lumber trade. Vast forests in Louisiana and Mississippi and Eastern Texas will find this city a common meeting point.

### THE SWEET GUM.

The value of sweet gum as a cabinet wood has only recently been discovered. The sweet gum is common throughout the South, but most abundant and largest in size in the Yazoo Valley, Northern Louisiana and Arkansas, there being 9,000,000 acres of it in these three States. It grows to a large, straight tree ninety feet high, furnishing a considerable amount of lumber. This lumber has been found to be eminently adapted for cabinet purposes. Polished, it attains a satiny gloss far superior to black walnut, rich and elegant. The wood has only one inconvenience; it warps very badly, and, unless this evil can be corrected, it will not grow in favor. This defect, however, it is claimed can be remedied. A considerable amount of gum is now being shipped to Cincinnati and other cities engaged in the manufacture of furniture, and fine desks, armoirs and tables have been made from it. It is also extensively used in house-building, and lasts very well.

The rapid disappearance of black walnut, nearly all of which has been destroyed in the Northern States, renders it necessary to discover some substitute for it, and it is suggested that the sweet gum will take its place. The supply of it is practically inexhaustible, and it grows in large clumps and is generally easy of access. During the past year several companies, notably a large English syndicate and an organization of Western lumbermen have made extensive purchases of land in Mississippi, approximating $2,000,000, well wooded, largely in gum, with the intention of bringing this lumber into general use for cabinet purposes. Experiments have been made with it whereby its defect have been corrected. This will make it the furniture wood of the country during the next twenty years.

### CYPRESS.

A wood in which Louisiana has a great interest is cypress, which the state grows in larger quantities than any other in the Union. Valuable cypress swamps exist along the Atchafalaya and its tributaries, and scattered throughout the southern portion of this State. The merits of this wood have only recently been discovered. When the saw-mills at Beaumont and Orange, Texas, began manufacturing cypress lumber they found very litte demand for it, but they have since quadrupled their production, and find an easy market for all they can saw. This lumber is just beginning to be introduced into the northern markets, and its advantages are now acknowledged.

The wood is fine grained. After exposure to the air it becomes of a dim reddish color. It possesses great strength and elasticity, and is lighter and less resinous than the wood of the pines. To these properties is added the faculty of long resistance to the heat and moisture of a southern climate. The color of the bark and properties of the wood vary with the nature of the soil. Trees growing near the natural bed of rivers, and surrounded half the year with water to the height of tree or four feet, have a lighter colored bark than those standing where water does not reach them, and their wood is whiter, less resinous and lighter. These are called white cypress; the others are darker, and so called red cypress.

Along the Mississippi river, from the Delta to the mouth of the Arkansas river, grow large cypress swamps, just back of the cultivated land. In these swamps, where on the deep, miry soil a new layer of vegetable mold is every year deposited by the floods, the cypress attains its greatest development. The largest trees are 120 feet in height, and from twenty-five to forty feet in circumference above the conical base, which at the surface of the earth is always three or four times as large as the continued diameter of the trunk. Those felling the trees built scaffolds five or six feet high, upon which they stand to chop down these huge southern vegetable monsters. The base is usually hollow for three-fourths of its bulk. Its surface is longitudinally furrowed with deep channels, the ridges of which serve as clamps to fix it more firmly in the loose soil.

In the preparation of the wood, both varities, white and red, are cut in winter, and seasoned until perfectly dry. Cypress is extensively used for building purposes. Roofs covered with cypress shingles from timber cut in winter will last for forty years. The boards are preferred to pine for the inside work of brick houses and for window sashes and panels of doors exposed to the weather. Cabinet-makers use it for the inside of mahogany furniture. It has been used for the sides of vessels, and to a limited extent for masts. Large trunks are frequently made into canoes, some of them thirty feet long and five feet wide. They are more solid and durable than those of any other tree. Cypress makes the best pipes to convey water under ground, especially the red variety.

This truly excellent wood is now used for various purposes, and there is an increasing inquiry for it. Boat builders use it to a considerable extent. Many of the small boats belonging to the men-of-war in the United States service are constructed of cypress; much is used for water taks, sugar coolers, and cisterns on account of its durability; some enters into the construction of houses and house finishing, it being excellent in ceiling, and large quantities are made into shingles and railroad cross-ties. The Lehigh Valley Railroad Company ordered 75,000 of these ties to be used upon its road some seasons ago, and have found that they lasted splendidly. Some claim that shingles properly prepared will last 100 years. They are certainly very durable. Wood taken from submerged swamps, which has been in contact with the decaying influences of mud and water for untold centuries, is found to be in an excellent state of preservation. Cypress logs have been taken from the soil deep underneath New Orleans in good condition.—*Saw Mill Gazette.*

## GERMAN IMPORT DUTIES.

We understand that a very remarkable alteration of the import duty on wood goods into Germany will take place before very long, Prince Bismark having made a proposition in the German Parliament for an increase of the duty. Parliament is said to be likely to pass this bill, and in this case the import into Germany of sawn and hewn timber from Russia, Finland, and Sweden will be seriously interfered with, if it does not practically cease. As a consequence of this bill, the position of Memel, Danzig, Konigsberg and Stettin will be greatly improved; in fact, an increase of the duties, as proposed by the Chancellor, will have a very considerable influence upon the whole Baltic timber trade. It follows from this that, if the duty is first imposed in October, Germany will be a heavy buyer this year; if it begin before the opening of navigation, there will be little or no timber imported into Germany from the above-named countries.

The proposed additions to the duty on imported timber which the great German Chancellor contemplates will have one of two effects according to the time selected for the law coming into operation. One will be to clear out considerable stocks on the Scandinavian side, through the anxiety to get the stuff into the prohibited country before the duty is enforced. The other will be to divert the usual import of Scandinavian wood from Germany to the United Kingdom, owing to the duty coming into force before the shipments can be made to the Prussian Ports. These opposite effects have a very important bearing on this market notwithstanding that the consumption of foreign deals in Prussia is insignificant when compared with what is brought in here. It always seemed anomalous to us that Germany, with extensive forests within her own boundries supplying a capital class of redwood, should look to Sweden or Norway, or Russia either, for the manufactured articles, at the same time carrying on an extensive export trade herself in both hewn and sawn material.

The large timber districts watered by the Volhynia and Vistula, which feed Danzig and Stettin, besides Memel, with timber logs, are of sufficient area to supply the home consumption without any apparent diminution of the quantity exported. A glance at the map will convey some idea of the vast forest ranges with which Poland abounds, furnishing timber of excellent quality. The intention is to raise the duty on foreign sawn wood to 2 marks the hundred kilogrammes; this, it is reckoned, will be prohibitive, and put a stop to the trade. The chief places to be effected will be the flooring ports, a considerable quantity of that class of wood being annually shipped to Germany.

The consumer within the limits of the German Empire will hardly feel the duty about to be imposed a very great burden on his industry, especially as it is probably intended that the tax so levied shall go to his benefit in some other way.—*Timber Trades Journal.*

## WATER POWER AND OUR FORESTS

The relation of our water power to the forest is very intimate, and has been for years a matter of investigation, in view of the irregularity and decline of the one with the destruction of the forests. There may not have been proven to be an aggreate decrease in rainfall as forests have disappeared, but the retention of the water and its distribution has been so affected that streams that formerly gave steady and realiable power are now alternately dry or flooded. In 1880 Massachusetts had 3,046 water wheels, while those of New York and Pennsylvania were respectively 9,752 and 7,075. In Massachusetts 44.67 per cent of the power used in her manufacture is water. The latter state has given this problem of the forest connection with this power a large attention, and has made attempts at legislative action. An exemption was proposed of forest lands from taxation, but was opposed on the ground that it would be equivalent to a bounty on certain lands that would be held as a recourse when the markets were favorable, and throw an under burden on the others. A forest commission was finally appointed to secure the state census supplementary data to that of the national in 1879.—*Boston Journal of Commerce.*

## BOILER CORROSION.

Internal corrosion, says the *Locomotive*, is sometimes one of the worst things the steam user has to contend with. With certain kinds of water, it is an insidious foe, and is apt to do great damage to the shell-plates before its presence is suspected, or the extent of its action realized.

The primary causes of this action are many, and sometimes quite difficult to determine. The nature of the impurities in the feed water, and the treatment which the boiler receives at the hands of its attendants, are, in general, the potent factors of corrosion. The character of the plates also has much to do with the nature of the action.

Pitting is one form of internal corrosion which is most easily discovered by inspection, and regarding the nature of which there has been a vast amount of controversy. Some attribute it to galvanic action, some to the action of the feed-water, while others attribute it to various other causes, among which some sort of gas theory is usually prominent. As a matter of fact, in this as other things, a variety of different causes may operate, either separately or conjointly, to produce the same result; hence the diversity of opinion as to its causes, and the failure of many of the remedies which have been suggested as specifics for the prevention of the trouble.

In many cases pitting has been traced to galvanic action, and remedies for this have cured the trouble. Galvanic action seems most liable to occur, where grease or some fatty acid finds the way into the boiler through brass tubes, as where a surface condenser is used. The fatty acid attacks the brass and carries portions of it into the boiler, and it adheres to the shell and tubes. Under the patches so formed, pitting sometimes goes on quite rapidly. The remedy in this case is obvious.

But the majority of cases of pitting in land boilers arises from an entirely different cause. Paradoxical as it may seem, the feed-water may sometimes be so pure that it causes the trouble. Where water containing so few impurities that it may be said to be acid, is used in boilers, they require a certain line of treatment, especially when they are not in use, or they will be most certainly badly pitted in a short time. Boilers used for heating purposes are especially liable to be so attacked when out of use during warm weather. Among such boilers unless proper care is exercised in "laying them up," pitting and corrosion is the rule, and sound boilers are the exception. This class of boilers generally wear out faster, while standing idle, than they do when in use. The proper steps to be taken to preserve them uninjured can most easily and cheaply be learned from some experienced boiler inspector. Location has much to do with the matter, and it is impossible to give any hard and fast rule for their cure which shall apply to all cases.

There is a peculiar kind of corrosion which sometimes occurs beneath patches of incrustation, which is very apt to escape anything but the most careful scrutiny, and often produce serious results before its presence is suspected. Generally, a coating of incrustation is regarded as a measurable protection against corrosion, but in the case we are speaking of, from some peculiarity in the composition of the feed-water, it seems to invite it. The remedy can only be prescribed after a careful examination of all the circumstances by an experienced inspector, and sometimes an analysis of the water is necessary to point out a remedy. We have known cases of this kind when the boiler shell has been eaten entirely through before the trouble was suspected.

## A BIG BAND MILL.

An exchange describes a new band mill recently put into the mill of F. A. Mulgrew, foot of East Eighth street, New York city. The band mill is of London, Barry & Orton make. The wheels are eight feet in diameter, made of wrought iron, arms and rim covered with wood, while the latter is faced with gum cloth, and carries a 6 inch blade, 47 feet in length. It is the largest band saw in New York, and has a capacity for 5,000 feet of mahogany per diem. As the dogs catch in, instead of being driven in, it enables the sawyer to finish up to § inch stuff without allowing the board to spring any. There is a duplex motion upon the guide which throws the saw off the wood in running back, so that there is no danger of the saw being thrown off the wheel. This is an improvement on the old method of setting the wood over from the saw. The feed works are so arranged that the sawyer can, in one position, stop or start the mill, change the feed, or change the direction of the carriage, and the feed is variable, so that the sawyer can feed fast or slow. It is an acquisition to the mill of F. A. Mulgrew, and does excellent work.

## The Largest Dry Dock in the World.

St. John's, Newfoundland, has now the distinction of possessing the largest dry dock in the world. In all England and Scotland there is not one nearly so large. In New York the Erie Dock is nearly as large, but there is no other in the United States approaching it in size. It is 600 feet long at the top, and 558 feet upon the line of keel-blocking. Its breadth is 132 feet at the widest part, and 85 feet at the abutment or entrance. The draft of water over the gate cill is 25 feet at high water. The largest steamer afloat, with the single exception of the Great Eastern, could enter this dock at ease. It is built of wood, and the cost has been $550,000. The Messrs. Simpson have rented it from the Government for ten years at $16,000 per annum. Only $9,000 more will be needed to pay the annual interest on the outlay, and before ten years it is confidently expected it will be more than self-supporting.

THE Port Blakely, W. T., mills have lately received orders for 15,000,000 feet of lumber to go to Australia, and the Tacoma mills have received orders for 10,000,000 feet. At Port Blakely it is estimated that there are 60,000,000 feet of logs in the water. Logging camps on January 17th were to start up work as soon as the weather should permit. The outlook for the lumber trade in the Puget sound region is considered bright.

Young or middle-aged men suffering from nervous debility, loss of memory, premature, old age, as the result of bad habits, should send three letter stamps for illustrated book offering sure means of cure. Adresas World's Dispensary Medical Association, Buffalo, N. Y.

# Chips.

MR. D. P. MCLARIN, lumber merchant, Brandon, Man., has sold out his business to Messrs. Hughes & Patrick.

OVER 13,000,000 feet of lumber changed hands on the Saginaw river during the week ending Feb. 11th.

A CONTRACT to deliver 26,000 ties at High Bluff station, for the Manitoba & Northwestern Railway, has been awarded to Mr. David Wark.

ON Feb. 16th Mrs. H. B. Rathbun, sr., of Deseronto, wife of the senior partner of the firm of Rathbun & Sons, dropped dead from an attack of appoplexy.

"LOGS are logs" these days, says the *Lumberman's Gazette*, and their conversion into umber embraces piles of the circulating medium. In the past six months over $160,000 has been paid out at Evats for small lots of logs, no one bill amounting to over $1,500.

THERE are great difference in the average growth of some of the more common trees. In 12 years white maple increases 1 foot in diameter and 30 feet in height; ash, leaf maple or box elder, 1 foot and 20 feet; white willow, 1½ foot and 35 feet; blue and white ash, 10 inches in diameter and 25 feet in height; Lombardy poplar, 10 inches and 40 feet; black walnut and butternut, 10 inches and 20 feet.

MR. SMYTH, of Kent, Ont., has before the Dominion House a bill to provide for the inspection and measurement of saw logs. By its terms the Governor-in-Council has power to appoint inspectors and measurers, whose duty it will be when called upon to examine, classify, and measure all saw logs delivered at the mill. The object is to afford protection to the farmer and insure for him a proper classification and measurement of all logs sold and delivered by him.

MR. G. A. GRIER, of Montreal, is shipping from Eddy's south shore mill, near Ottawa, two million feet of lumber, which he is sending by all rail route to Oswego, N. Y. This is a new departure, as heretofore it was customary to ship only to Brockville by rail in the winter, and allow it to remain there until the summer, when it is forwarded to its destination by water. The entire shipment will make about 200 carloads. Messrs. Rathbun & Co., of Deseronto, will also ship a million feet from the same mill to Oswego by the same route during the winter. —*Ottawa Citizen.*

TIMBER is already beginning to be moved eastward by the C. P. trains. Quite a large cut has been made at various places on the line this winter. Messrs. Timmins & Gorman, of Mattawa, are taking out a raft of timber at Whaapital, which will be shipped direct to Quebec on the opening of navigation. Much valuable timber exists along the line which it is believed will attract many lumbermen during the coming season. Soundings are now being made in the Ottawa river immediately above the Mattawa, in relation to the proposed improvements of the river's navigation from that place to Temiscamingue. Should the improvements be successful in improving the river's navigation, it would give a great impetus to the French colonization scheme.—*Brockville Recorder.*

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122


**"The Slough of Desponency"**

in which you are wallowing, on account of some of those diseases peculiar to you, madame, and which have robbed you of the rosy hue of health and made life a burden to you, you can easily get out of. Dr. Pierce's "Favorite Prescription" will free you from all such troubles, and soon recall the rose-tint of health to your cheek, and the elasticity to your step. It is a most perfect specific for all the weaknesses and irregularities peculiar to your sex. It cures ulceration, displacements, "internal fever," bearing down sensations, removes the tendency to cancerous affections, and corrects all unnatural discharges. By druggists.

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The Government will defray the cost of freight in conveying Canadian Exhibits to Antwerp, and from Antwerp to London, and also of returning them to Canada in the event of their not being sold.

All Exhibits for Antwerp should be ready for shipment not later than the first week in March next.

These Exhibitions, it is believed, will afford favourable opportunity for making known the natural capabilities, and manufacturing and industrial progress of the Dominion.

Circulars and forms containing more particular informatiod may be obtained by letter (post free) addressed to the Department of Agriculture, Ottawa.

By order,

JOHN LOWE,
Secy., Dept. of Agric.

Department of Agriculture, Ottawa, December 19th, 1884. 6d1-6t1


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Is the most complex work of the Creator, and when this complicated structure, so exquisitely wrought, is disturbed by disease, the most efficient aid should be sought from the most skilled physician — for the human body is too precious to be neglected. It becomes the question, then: "What physician shall be employed?"

DR. OSCAR JOHANNESEN, of the University of Berlin, Germany, has made a lifelong study of ailments of the Nervous and Genito-Urinary System.

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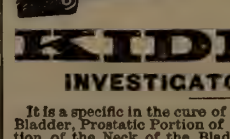

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It is a specific in the cure of all diseases of the Kidneys, Bladder, Prostatic Portion of the Urinary Organs, Irritation of the Neck of the Bladder, Burning Urine, Gleet, Gonorrhea in all its stages, Mucous Discharges, Congestion of the Kidneys, Brick-dust Deposit, Diabetes, Inflammation of the Kidneys and Bladder, Dropsy of the Kidneys, Acid Urine, Bloody Urine, Pain in the Region of the Bladder. PAIN IN THE BACK, Urinary Calculus, Renal Calculus, Renal Colic, Retention of Urine, Frequent Urination, Gravel in all its forms, Inability to retain the Water, particularly in persons advanced in life. IT IS A KIDNEY INVESTIGATOR that restores the Urine to its natural color, removes the acid and burning, and the effect of the excessive use of intoxicating drink.

**PRICE, $1; or, Six Bottles for $5.**

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**W. JOHNSTON & CO.,**

261 Jefferson Ave., DETROIT, MICH.

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY THE

Peterborough Review Printing and Publishing Company (Limited), Peterborough, Ont.

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All communications, orders and remittances shoulp be addressed and made payable to THE PETERBOROUGH REVIEW PRINTING AND PUBLISHING COMPANY (LIMITED), Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DRACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., MARCH 2, 1885.*


SEVERAL jobbers in Hastings County have paid off their men and broken up the shanties.

A MILL at Antigo, Wis., is cutting a considerable quantities of deals for the English market.

IT is said that Muskegon and Saginaw lumbermen complain that their best logs in Claire county are stolen by moonshiners.

DURING the past six months $160,000 have been paid by Evarts, Mich., parties for small jags of logs, no one bill amounting to over $1,500.

THE schooner Favorite, from Norfolk, for New York, with lumber, went ashore February 14th, at Hereford, and is a total loss. The crew were saved.

FEBRUARY 12th, John and Abram Johnson, Finlanders, started from East Tawas, Mich., for Gardner's camp, and were found three days later frozen to death.

A BILL has been introduced into the Wisconsin legislature amendatory of the lien law on logs, timber, and all coarse forest products. It gives labor and supplies precedence of all other claims or liens.

IT is reported that a pine tree was lately cut at section 17, township 24-6 (Norwich), Missaukee county, Mich., which made 22 logs, the total scale of which was 15,722 feet, the butt being eight feet in diameter.

PAINE & Co.'s mill at Pacific Junction, Minn., has just finished sawing all the timber to be used in the construction of the Northern Pacific railway bridge between Superior and Duluth. It amounted to 9,000,000 feet. In the bill were 900 pieces of 9x16 stringers.

AT Nester & Sullivan's logging camp, near Grand Marais, Mich., the snow last week was from four and one-half to five feet deep on a level. This firm has 100 men and 16 teams employed in its camp. The logs will be rafted to Quebec, and thence shipped to England.

It will strike many people as peculiar that our $16,000,000 worth of wood and lumber has been imported into the United States, while the exports have amounted to over $24,000,000 for the fiscal year ending June 30, 1884.

A LINE of steamers is contemplated between Tacoma, W. T., and Yokohama, Japan. The lumbermen of that coast favor the line, because Japan is already a considerable consumer of Puget sound lumber, and a steamer line will facilitate this trade.

IT is reported that the Glens Falls Paper Mill Company will introduce the Pond sawdust pulp machines, and begin the manufacture of sawdust paper. A large platform is said to have been built under one of the mills to catch all the dust and edgings that have heretofore gone into the river.

A DETROIT lumber dealer has written to a man at Marquette, Mich., requesting that he secure ground and dock facilities at that point on which to erect a mill. The Detroit man claims to have a contract for furnishing 25,000,000 feet of hardwood lumber to eastern parties, and that the proposed mill will employ 30 to 40 men.

A WOODENWARE concern at Vanceboro, Me., illustrates what could be done in Michigan or Wisconsin, or any other of the wooded states, North or South, by enterprise or capital. At the factory referred to wood flooring (probably parquetry) broom handles, cant dog stocks, base ball bats, clothes pins, dowels, trunk cleats, mop handles, brush handles, and numerous other articles of wood are turned out and shipped all over the United States, even to Oregon and Washington Territory. An order for cant dog stocks is now being filled for the State of Mississippi. There is nowhere that wooden goods cannot go, and there are no goods that are likely to encounter so little competition from foreign makes.—*Northwestern Lumberman.*

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Feb. 10, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C. :—

311,967—Chuck lathe—C. W. Crary, Chicago, Ill.

312,034.—Lathe and planer tool—H. B. Steele, Somerville, Mass.

312,223.—Lathe tool—T. & T. E. Ryan, Lockport, N. Y.

312,229.—Plane—W. Tidgewell, Middletown, Conn.

312,133.—Saw—J. Ledward, Westerly, R. I.

312,205.—Saw, drag—J. H. Hulburt, Blanchand, Mich.

312,061.—Saw swage—L. B. Young, Newport, Ark.

PATENTS ISSUED FEB. 17.

312,250.—Edger, gang—W. A. Campbell, Marinette, Wis.

312,136.—Logs, apparatus for collecting scattered—A. McDougall, Duluth, Minn.

312,299.—Saw, drag—M. O. Smith, New Buffalo, Mich.

312,530.—Tenoning and boring machine—R. Triller, Buffalo, New York.

312,298.—Lathe for turning handles—H. Sheldon, Vienna, Ontario, Canada.

312,288.—Lathe for turning irregular forms—G. H. Ober, Chagrin Falls, Ohio.

## THE OUTLOOK.

The *Lumberman's Gaztte*, of Bay City, Mich., in its issue of Feb. 25th, gives its opinion of the business outlook as follows :—

As the winter passes along the indications for a lively spring business become more and more assuring. Business men all over the country have been husbanding their resources. Stocks of goods are unusually small, dealers holding back for the appearance of trade, which must inevitably soon set in. Building contracts are reported more numerous than for years past at this season of the year; and just as soon as the weather softens sufficiently to admit of outdoor operations, the demand for building material of every description must assuredly be very active. Lumber and hardware especially must be in heavy call, and the activity in these two branches of trade are usually sufficient of themselves to set the wheels of business in motion generally; and so as soon as this results, the stocking up process will commence which will give increased impetus to the tide of business activity, until the white winged messenger of prosperity shall proclaim his triumph throughout the land. The industrial prospect in many branches of business is already bright with hope, amid the cheerful tidings of furnaces and other industries starting anew the fires which have been so long smouldering or completely extinguished. The iron industry is almost invariably the first to feel the shock of stagnation, and is also the first affected by the beating of the pulse of industrial resumption. February is not a good month in which to look for any great activity in business circles, even in prosperous business years, and especially should it not be expected to present any very active features this year, when business stagnation preceded its arrival, and when the thermometer has been struggling during the entire month in the neighborhood of zero, with genuine blizzards blocking all the avenues of trade, and congealing the pulse of even business inclination on the part of manufacturer, capitalist and tradesman. Still, in the face of all these untoward surroundings, the outlook for general activity is bright with promise at the present time, and it seems positively safe to predict that the early days of March will witness the inauguration of bright business activity. Even the veriest croakers on business depression, who are invariably painting black, ominous clouds of business disaster, have retreated from their position and are restrained from an exhibition of their dyspeptic and distorted imaginings, which have tended so very materially in the past to delay the advent of business resumption, by inducing timidity on the part of capital, and retarding to the best of their ability and influence, the impetus of natural trade impulses which have been struggling for the ascendancy, with apparent final success. The bright orb of prosperity is finally brighten ing up the business horizon, and ere many days will shine forth in resplendant glory, shedding its benificent rays of prosperity over the land.

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Jan. 1885.

MONTH ENDED 31ST JAN. 1885.

| | Quantity. Loads. | Value. £. |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 3,243 | 6,692 |
| Sweden and Norway | 20,531 | 31,062 |
| Germany | 8,193 | 18,998 |
| United States | 6,146 | 21,463 |
| British India | 3,923 | 54,629 |
| British North America | 250 | 750 |
| Other Countries | 45,494 | 61,191 |
| Total | 87,770 | 194,785 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 3,582 | 7,112 |
| Sweden and Norway | 23,633 | 50,251 |
| British North America | 9,787 | 19,712 |
| Other Countries | 11,181 | 37,462 |
| Total | 48,133 | 114,537 |
| Staves, (all sizes) | 3,088 | 19,431 |
| Mahogany (tons) | 6,751 | 58,940 |
| Total of Hewn and Sawn | 135,903 | 809,322 |

## WHERE OUR FORESTS ARE GOING.

An American exchange says:—"To make shoe pegs for American use consumes 100,000 cords of timber, and to make our lucifer matches 300,000 cubic feet of the best pine are required every year. Lasts and boot trees take 500,000 cords of birch, beech and maple, and the handles of tools 500,000 more. The baking of our bricks consumes 2,000,000 cords of wood, or what would cover with forest about 50,000 acres of land. Telegraph poles already up represent 800,000 trees, and their annual repair consumes about 300,000 more. The ties of our railroads consume annually thirty years' growth of 75,000 acres, and to fence all our railroads would cost $45,000,000, with a yearly expenditure of $15,000,000 for repairs. These are some of the ways in which American forests are going. There are others; our packing boxes, for instance, cost in 1884, $12,000,000, while the timber used each year in making wagons and agricultural implements is valued at more than $100,000,000."

The writer omits some important items in his calculations of the lumber annually consumed in this country. First is building; there is more lumber used in the construction of residences, stores, warehouses, barns, sheds and wharves than all he has enumerated; then there is fencing of lands other than railroad, there is shipbuilding, and the consumption for coasting vessels is enormous. Then there is furniture and other wood ware; piles use up an immense quantity of timber on this coast, so does mining; charcoal burners are responsible for the clearance of immense tracts of land. Moreover, forest fires destroy millions of cords of wood every year. The timber supply of the future is one of the important questions which men who look to the welfare of future generations have to deal with.—*Canadian Manufacturer.*

## NORTHWEST LUMBERMEN.

The following figures, taken from the report of Mr. Stephenson, crown timber inspector of the Department of the Interior, shows the the quantity of lumber, shingles and lath manufactured by Manitoba and Northwest lumbermen during the year ending Oct. 31st, 1884 :—

| | *Lumber.* | *Shingles.* | *Lath.* |
|---|---|---|---|
| Adams & Scheider | 600,000 | | |
| Armitage & McCulloch | 110,000 | | |
| Amitage, J. S. | | | |
| Bergin & Co., John | | | |
| Boulton, C. A. | | | |
| Brouse, G. J. & Co. | 76,000 | 62,750 | |
| Brown, Rutherford & Co. | 1,300,000 | | |
| Bulmer F. T. & Co. | 1,150,276 | | 61,000 |
| Cameron, Alex. | 60,040 | | |
| Dick, Banning & Co. | 839,058 | | |
| Douglas, David | | | |
| Douglas, Jno. Wm. | 298,834 | 80,500 | |
| Drake & Rutherf'd. | 400,000 | | 81,800 |
| Fox, T. L. | 161,649 | 231,750 | |
| Ferguson, McQuarrie & Grigg | | | |
| Hudsons's Bay Co. | | | |
| Jonasson & Frederick Bros. | 614,877 | | 276,000 |
| Kent, Jas. | 580,826 | 220,000 | 10,600 |
| Keewatin Lumbering & Manufacturing Co. | 4,275,798 | 1,982,000 | 1,819,700 |
| Leacock, E. P. | | | |
| Likely, Jno. | | | |
| Mitchell & Byers | | | |
| Macaulay, W. J. | 582,489 | 202,000 | 111,000 |
| McFadden, D. | 594,289 | 527,000 | 72,900 |
| McKay, James W. | 100,000 | | |
| Mc Donald and Shields | 4,259,484 | | |
| Northwest Timber Company | 1,167,569 | 83,000 | 13,000 |
| Rainy Lake Lumber Co. | 1,755,839 | 359,000 | 497,700 |
| Ross, A. W. | | | |
| Ross, Crawford | | | |
| Ross, David | 870,000 | | |
| Shields, et al | 2,302,357 | | |
| Smith, S. | 214,176 | 259,500 | 20,000 |
| Sprague, D. E. | 2,208,865 | | 285,000 |
| Stubbs, W | 650,000 | 40,000 | 20,000 |
| Stubbs, W. H. jr. | | | |
| Watts, Alf. | 376,461 | 43,250 | |
| Whimster & Kayll | 80,000 | 107,000 | |
| Wiliamson & Harrison | 72,307 | 147,500 | 17,000 |
| Total | 26,078,098 | 4,212,750 | 2,715,200 |

### British Columbia Mills.

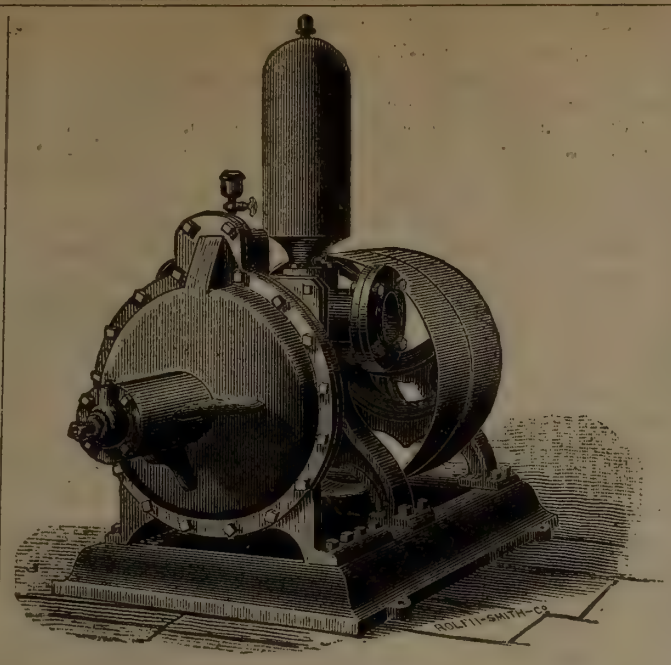
A Pacific coast exchange adverts to some of the mills in British Columbia as follows :—"There are two large mills manufacturing exclusively for foreign exportation. The Hastings Saw Mill Company cuts about 15,000,000 feet annually, frequently filling orders for special timber of an enormous size. Some logs have been cut 28 inches square and 110 feet long. The Moodyville Saw Mill Company cuts nearly 20,000,000 feet annually, and employs about 110 men, having numerous electric lights for night work. Timber has been brought to this mill measuring seven feet six inches in diameter at the butt, and five fee 130 feet from the base. This is the Douglas pine, or fir, and both companies own large tracts of that valuable timber.

# Central Iron Works

SIMCOE STREET

**PETERBOROUGH, Ontario.**

WM. H. LAW, PROP'R.



## PROTECTION FROM FIRE

**An Improved Rotary Piston Force Pump.**

| No. | Diameter of Pipes. | | No. of Revolutions. | Capacity per minute at table speed. | Price. |
|---|---|---|---|---|---|
| | Suction. | Discharge. | | | |
| 2 | 2½ in. | 2 inch. | 250 | 125 | $100 |
| 3 | 4 " | 3 " | 250 | 250 | 150 |
| 4 | 5 " | 4 " | 250 | 400 | 225 |

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STEAMBOAT PROPELLERS AND ENGINES.

**CASTINGS**

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**IRON ROOFING AND BRIDGES,**

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# ST. CATHARINES SAW WORKS!

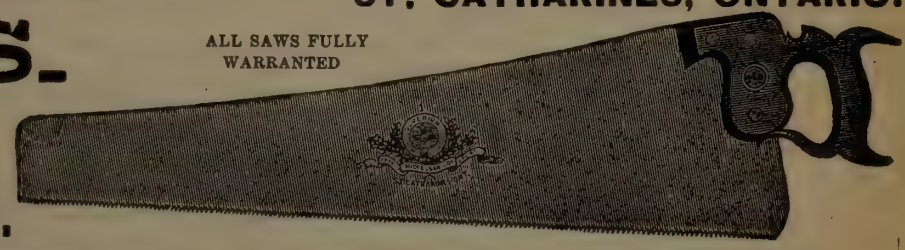
## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

**ST. CATHARINES, ONTARIO.**

## SAWS.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

## "SIMONDS" SAWS.

☞*All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*


### ECONOMY OF WOOD IN ENGLAND.

A writer in *Woods and Forests*, of Westminster, England, says that everything in the shape of wood is turned to account in the southern counties of England, even the roots being utilized for fuel. Cordwood is made of tree branches, a cord being three feet high, three feet wide and 14 feet long. It sells at $7.50 to $7.68 a cord. Large quantities of cordwood are made into charcoal for drying hops. Roots of trees are converted into charcoal. The writer of this article quaintly remarks that, "Large wood is not so profitable for charcoal as small, for the reason that the large is the more valuable in the first place, and it does not cost so much to cleanse as the small wood"—a proposition that would make an American charcoal man laugh. Nine or 10 shillings a cord are paid for grubbing roots, that are either sold for fuel or burned for charcoal. House fagots are made of branches too small for cordwood, and also of the crooked and waste wood of the coppices not fit to be cut into hop poles, pea bough hoops, flour sticks, etc. They are put up in bundles five feet long and five feet round, and bound in the middle like a bundle of wheat. The small spray of undergrowth, of all kinds of wood, is cut and made into bundles, and sold for about 31 cents a hundred. They are used for brick burning. Fagots sell at $4.80 to $5.25 in the woods per 100, whatever that may be; the writer does not say whether it is 100 bundles or 100 sticks. They are used for fuel, especially for lighting fires and heating bakers' ovens. It is not everywhere in England that it is profitable to practice such economy with woods. It will be a long time before such a course will be necessary in this country. When it is profitable in Michigan or Wisconsin to save the trimmings of trees, as it is done in England, the forest preserver can go out of business, for the self interest of tree owners will make his mission unnecessary.—*Northwestern Lumberman.*


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhœa, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the prescription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.



# GRAY NO MORE HAIR.

**Grayline; the Great Hair Restorer and Renewer,** changes *gray hair* to its natural color gradually and permanently. Not a dye. A marvellous invention. Gray-haired persons, old men and odd women made to look young in three weeks. No more gray hair. Also grows hair rapidly and luxuriantly Send for descriptive book, and testimonials and opinions of eminent chemists and doctors, etc., who recommend it highly. Address, **J. H. NICHOLSON, 7 Murray St., New York.** d64w52d


### Injured While Logging.

BELLEVILLE, Feb. 21.—Last week, as Geo. Wright, of Foxboro, was hauling logs in the wood north of Madoc, the hook that attached his horse to the chebogan broke, and he was pulled forward to the ground in front of the sleigh. He fell upon his back in the road, and the chebogan loaded with twelve logs ran over the lower part of his body and pinioned him to the ground. The teamster of the sleigh which followed rode to the camp, a distance of two miles, where help was secured, and the unfortunate man liberated after being held a prisoner and suffering the greatest agony for two hours. It was reported to-day that he died on Thursday.


For diarrhœa, cholera morbus, dysentery and bloody flux, colic or cramps in stomach, use Dr. Pierce's Compound Extract of Smart-Weed. Specific, also, for breaking up colds.



# $5.00 FOR 35c

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THE R. M. & CO. STANDARD CYCLOPEDIA.

This Cyclopedia is a new and valuable book for popular use, compiled by competent editors, after consultation of the best authorities, printed from new, large, clear type, and handsomely bound in leatherette in imitation of crocodile skin. It contains information on every conceivable subject, and its reliability has been assured by the most careful preparation. It is of the greatest use in answering the 10,000 questions that constantly arise in regard to dates, places, persons, incidents, statistics, etc., etc.

Complete in one volume. Finely illustrated.

We want agents and canvassers, and in order that you may have a copy to exhibit and canvass with, we make this **SPECIAL OFFER.** To any one who will agree to show this book to their friends and assist us in making sales, we will, upon receipt of 35 one-cent stamps, to prepay postage expense, packing, etc., forward one copy by return of mail.

414 CALL PUBLISHING CO., CHICAGO, ILL.

### LUMBER BEGINS TO MOVE.

Several weeks ago we predicted that about the middle of February would very probably witness a break in the stillness which characterized the lumber business in the Saginaw valley at the time; and the events of the past week are conclusive evidence that our prediction was correct, as, in lumber parlance, "lumber begins to move," even a short time previous to the date announced by us. Commencing about the first of February, a number of dealers from Ohio and from the east have been noticed at the principal hotels at Bay City and East Saginaw. They announced almost invariably that they merely came here "to see how things looked," and the announcemont was undoubtedly correct. There are no business men in the country who are more prudent or cautious as a rule than the average lumber dealer, and he usually proposes to "see for himself and not for another," and has no idea of letting others see for him. It was this characteristic which brought them hither. They were in doubt as to what was to be the outcome of the Michigan log crop; and well understood that the prices for the staple product of the Saginaw valley would be to a very material extent dependent on the result of the labors of the loggers. There was method in their movements and rational reasoning in their statement that if there was to be no very noticeable curtailment of operations in the pineries there would be "plenty of time to purchase" before the opening of navigation. More recent events, however, demonstrate very conclusively that they have arrived at the conclusion that the much mooted curtailment is a substantial reality, and that it is not an unsafe investment to place a little money on the lumber piles on the Saginaw river. A. S. Kibbee, of the firm of Dalton & Kibbee, Albany, N. Y., a pioneer dealer, usually noted for shrewdness and prudence in business, in accordance with the views expressed above, last week purchased about 1,700,000 feet of the Wells, Stone & Co. lumber at Saginaw, at $9, $18 and $38 and by the way this sale may be taken as a pointer in regard to prices. It is good stock, and the price paid was precisely the same lumber commanded last fall. Mr. Kibbe also purchased 1,100,000 from other parties the price of which we have been unable to learn through the most vigorous application of the reportorial pump. Another case is the sale of 6,000,000 feet of the Detroit mill stock to eastern parties, who request that their names be withheld from publication. Of course we must hesitate about divulging the name under the circumstances, as we have no disposition to violate the confidence of either the purchaser or manufacturer in opposition to the will of either. Suffice it to say, however, that the amount is correct, and that it is an actual, bona fide sale. The transaction above alluded to, with others of less note, demonstrate conclusively that the cloud has finally broken and that from this time forth there will be more business in lumber to report from the Saginaw river.—*Lumberman's Gazette.*

### A LOGGER'S STORY.

"For a young man I have done pretty hard scraping in the Rockies and mining regions of New Mexico and Arizona, but a few days ago I had the worst scare in my life in the lumber districts of Northern Michigan." The speaker was a young man of some 27 years, dressed in rough-and-ready style and wearing a frizzly tow beard. He shifted the position of his broad shoulders as he lounged back in an easy chair in the Sherman House office, puffed his cigar vigorously, and then continued: "It was one of those bitter cold days we've just been having, and I got up at three o'clock to rouse the men and get the sprinkler out. The air seemed full of blue steel and cut to my marrow like a razor. One of the teamsters got scared out and played off sick, so I had to take his place. When we had got a good load I took the reins and sat down on the butts of the logs leaving the two loggers on behind. Of course about 20 feet hung off the last bob. The road was a sheet of ice, for the sprinkler ran over it every morning, and the horses were sharp-shod so we slid alone smoothly till we got to the slide—a pretty steep incline ending in a turn which was mighty sharp for a road 60 feet wide. As soon as we started down my hair began to stand on end, for the horses galloped like fury to keep ahead of the bobs which were slewing all over the road. I got so paralized and nervous that when we approached the turn I reined in too suddenly. I felt the front bobs jump one way and the back bobs the other. The hind ends of the logs whistled through the air like willow switches, and I heard the loggers yell:—"For God's sake, —— ——." The next thing was a oud snap! snap! snap!—like three tremendous paper-crackers—as the big log chains broke like so many cotton threads. Did you ever use a switch sling? Well, that is the way I felt, and that is just what I thought of as I was shot off into the air, over, and over, and over, till I struck in a snow drift some 100 or more feet from the the road. When I struggled back through the snow I found the horses trying to kick loose from the few bits of harness that dangled about them, the bobs tangled about the roots of a small pine tree, and the logs scattered to the four winds. One logger crawled back to the road with a fractured leg, and the other soon followed with a dislocated shoulder. One had struck a tree and the second had landed against a stump. They afterwards told me in camp that these things were not all unusual, and, as I had some pretty heavy bruises myself, I concluded that I was not made to boss a lumber camp. So I was driven to town the next day to telegraph the management that the head teamster was filling my place, and that I was on my way to Chicago; and you bet your life I am glad I did it."—*Chicago Tribune.*

### WHO INVENTED THE BARREL?

Few inventions have had a wider or more varied usefulness than the barrel; few give such promise of perpetuity. Unique in principle, simple, yet singularly perfect in plan and structure, the barrel is little less than a stroke of genius. Who set up the first one? Who first conceived the happy thought of making a vessel tight and strong out of strips of wood bound together with hoops? And when did he live?

No history of inventions, none of the encyclopedias in our great libraries, no historian of human progress, so far as we know, gives any information on the subject, unless we except the Roman author, Pliny, who mistakenly attributes the invention to the Gauls who inhabited the banks of the Po. We say mistakenly, since there is the best of good reason for believing that the barrel was in use long before the Gauls took possession of their Italian home, perhaps long before the Gauls existed as a people.

The monuments of Egypt furnish proof of the early use of hooped vessels, though no date is given for their invention. In one of the inscriptions copied by Wilkinson may be seen two slaves emptying grain from a wooden vessel made with hoops, while the scribe keeps tally, and a sweeper stands by with a broom to sweep up the scattered kernels. Close by, an unfortunate is undergoing punishment by bastinado, for short measure, perhaps, or, as Mr. Wilkinson suggests, for petty theft. The measure is barrel shaped, and precisely like the kayl of modern Egypt. It would hold, apparently, about a peck. Unfortunately the age of the inscription is not given. Measures of the sort would seem to have been in common use very early in Egypt, though not for the storing of liquids, for which purpose skin and earthern vessels were employed.

At first thought, Egypt would be the last place to look for the invention of hooped vessels its arid climate making it specially unsuited for their employment. Possibly, however, that may have been the compelling cause of their invention.

Throughout the east, the bamboo is largely used for making hollow vessels, a section of the stem through a node securing a solid bottom, and one between the nodes an open mouth for a natural tub or bucket. In well wooded regions, nothing would be more natural than the employment of hollow tree trunks, for the same purpose, or sections of tree stems, hollowed out by fire or otherwise. In drying, such vessels would split and spoil, and it would require no great genius to repair them by means of withes or wooden bands, the primitive form of the hoop.

If the users of such natural barrels should migrate to region where timber was scarcer, economy of lumber would be likely to suggest the building of barrels from pieces artificially split, in short the use of staves, by means of whieh the primitive cooper would be able to make several barrels out of a block that would suffice but for a single dug-out.

But this is speculation merely. It is enough to know for a certainty that the cooper's art, like the potter's, is one of extreme antiquity We had no suspicion of its venerableness when we began to trace its history in response to the inquiry—Who made the first barrel?—*Scientific American.*

### TREE PLANTING.

Although a great deal has been written about tree planting and its relations to the rainfall of a country, still there does not as yet seem to be enough importance given to the subject by the government or by the people. In many countries and districts which were once celebrated for their fertility, agriculture can not now be carried on at all on account of the diminished rainfall, consequent on denuding the country of forests and bush. For instance, Palestine, the northern shores of the Mediterranean, Greece and parts of Spain. The mountains of Estremadura and Murcia have been stripped of the forests and there is now no rain there for eight or ten months, which forbids agriculture, while Catalonia and Valencia are covered with wood and possess a moist and productive soil. Prof. Lindley observes of Mauritius: "If this island should in time become barren, it will undergo the fate which usually attends the destruction or absence of forest in countries exposed to great solar heat." Blanqui says of the Cape Verde Islands: "The terrible droughts which devastate them must be attributed to the destruction of forests. On the other band, in South America the appearance of forest on cleared land was followed by a rising of the waters of Lake Tacaragura." Again, Blanqui says: "In St. Helena the wooded surface has extended and the rain has increased in proportion. It is now double what it was during the residence of Napoleon." The same authority says: "In Egypt recent plantations have caused rain. The rainfall in Egypt was as low as twelve inches in a year, but by planting some millions of trees by Mahomet Ali the rainfall has been brought up to forty inches. When the Mormons first settled in Utah they found the district barren; water had to be brought almost incredible distances in wooden pipes; trees were carefully planted and nourished with the water so brought, and now the district may be termed the garden of the world, and is not dependent on water brought a distance, but enjoys a steady rainfall." In Ascension the replanting of a mountain caused a spring which had dried up after felling the wood to flow again with its former abundance, the wood, having been cut down on the sides of the mountain, had dried up the spring at its base. The following is from "Proctor's Light Science:" "We may point out in this place the important connection which exists between the rainfall of a country and the amount of forest land. We notice that in parts of America attention is paid with marked good results to the influence of forests in encouraging rainfall. We have here an instance in which cause and effect are interchangeable. Rain encourages the growth of an abundant vegetation, and abundant vegetation in turn aids to produce a state of the superincumbent atmosphere which encourages the precipitation of rain; the consequence is that it is very necessary to check before it is too late the processes which lead to the gradual destruction of forests. If these processes are continued and the climate has become excessively dry, it is almost impossible to remedy the mischief, simply because the want of moisture is destructive to the trees which may be planted to encourage rainfall. Thus, there are few processes more difficult (as has been found in parts of Spain and elsewhere) than the change of an arid region into a vegetation covered district. In fact, if the region is one of great extent, the attempt to effect such a change is almost a hopeless one. On the other hand, the contrary process—that is to attempt to change a climate that is too moist into one of less humidity—is in general attended with not much difficulty. A judicious system nearly always leads to the desired result. It appears to be generally believed that trees produce the following effects: The increase the amount of rainfall. This they probably effect thus: They lower the temperature and thus cause the moisture laden air first to become visible as clouds, and secondly to be precipitated as rain. They intercept, as it were, tap the vapor charged winds. They supersede the state of tension and polarization which exists when an electrified cloud is above them by silently discharging the electricity. It is well known that a moderate amount of rain falls upon the ocean far away from land, and it may be thought by some that the absence of trees cannot reduce the rainfall to an amount less than the fall at sea, which may be considered the normal fall. That from some cause or other a less amount of rain may fall upon land than sea, is evident from the existence of the rainless districts of North Africa, Mexico and Peru. In order to attract rain it has been shown that the surface must be covered with objects like trees, which produce diminution of temperature."—*San Francisco Chronicle.*

SUMMER & HASCY, of Albany, N. Y., issue a neat little circular giving the amount of pine lumber on hand at that place on January 1st, 1884, and the same date in 1885, as follows: 1884, 98,801,000 feet; 1885, 115,208,000.

A NOVEL experiment of carrying a railroad through a forest has been tried in Sonoma county, California. The trees are sawed off and leveled, and the ties are fastened on the stumps, two of which are huge redwoods standing side by side and reaching 75 feet from the ground. So firm is this support that heavily loaded cars pass over with perfect security.

Dr. Sage's Catarrh Remedy cures when every other so-called remedy fails.

### LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Jan. 24th, 1884 and 1885, and also the Consumption for the month of Jan. 1884 and 1885:—

| | *Stock, Jan. 24th 1884.* | *Stock, Jan. 24th. 1885.* | *Consumption for the month of Jan. 1884.* | *Consumption for the month of Jan. 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 435,000 ft. | 277,000 ft. | 99,000 ft. | 59,000 ft. |
| " Waney Board | 344,000 " | 338,000 " | | |
| St. John Pine | 30,000 " | 21,000 " | 0,000 " | 0,000 " |
| Other Ports Pine | 83,000 " | 57,000 " | 7,000 " | 9,000 " |
| Red Pine | 52,000 " | 46,000 " | 8,000 " | 8,000 " |
| Pitch Pine, hewn | 380,000 " | 471,000 " | 118,000 " | 50,000 " |
| " Sawn | 502,000 " | 329,000 " | 70,000 " | 110,000 " |
| Planks | 65,000 " | 54,000 " | 10,000 " | 8,000 " |
| Dantzic, &c., Fir | 127,000 " | 94,000 " | 8,000 " | 2,000 " |
| Sweden and Norway Fir | 126,000 " | 55,000 " | 0,000 " | 5,000 " |
| Oak, Canadian and American | 336,000 " | 230,000 " | 14,000 " | 9,000 " |
| " Planks | 167,000 " | 166,000 " | 46,000 " | 35,000 " |
| " Baltic | 13,000 " | 9,000 " | 0,000 " | 0,000 " |
| Elm | 14,000 " | 15,000 " | 8,000 " | 0,000 " |
| Ash | 28,000 " | 37,000 " | 0,000 " | 3,000 " |
| Birch | 68,000 " | 63,000 " | 23,000 " | 25,000 " |
| East India Teak | 85,000 " | 11,000 " | 14,000 " | 2,000 " |
| Greenheart | 106,000 " | 53,000 " | 3,000 " | 6,000 " |
| N. B. & N. S. Spruce Deals | 19,087 stds. | 25,865 stds. | 3,777 stds. | 1,010 stds. |
| " Pine | 1,963 " | 580 " | | |
| Quebec Pine & Spruce Deals | 8,216 " | 5,554 " | 796 " | 266 " |
| Baltic Red Deals, &c | 4,920 " | 3,897 " | 135 " | 183 " |
| Baltic Boards | 91 " | 136 " | 14 " | 00 " |
| " prepared Flooring | 4,061 " | 3,892 " | 180 " | 803 " |

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*Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.*

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Canoes for Lumbermen, designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

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SILVER MEDAL at St. John, N.B., 1883.

Silver Medal, Montreal, 1882.

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H. WILLIAMS,
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17

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

FEB. 23.—Trade still continues quite flat, although quite a number of bills are offering, so that any mills that are operating and have the right class of logs are likely to be kept in full blast. Architects say that their offices are full so that the outlook for the spring opening is good. The principal shipments over the N. & N. W. road at present are in cedar. A large quantity of round cedar fit for block pavement is coming forward, and the contractors yards are piled to their utmost capacity; $4.50 to $5.00 per cord is the prices paid delivered on cars here, but the cedar must be perfectly sound and cut from green timber, otherwise it will not be accepted. Previous to cedar being used for block paving, the yard men could purchase all they required at $35.00 per car of 10 cords, and now the same class of cedar brings from $45 to $50 per car, so that cedar lands have proved more remunerative to the owners than formerly anticipated.

Shippers find it impossible to ship over the Midland division of the G. T. R. R. and leave any profit to themselves during the present season of snow and ice. Bill stuff having been cut for some time and not properly piled up becomes coated with ice, and when the car arrives here it is weighed and the shipper has to pay as much freight upon the ice and snow as upon the timber. Of course the railway company make some allowance in such cases, but not nearly as much as they should, for just as soon as the freight on common lumber reaches over $2.00 to $2.25 per M for freight, just that soon must the shipper stop shipping. The prices ruling here will not warrant him in bringing it forward to this market at anything above those rates.

In my last letter I promised to give what I considered would be a remedy against the overstocking of the retailers yard, thereby saving them considerable trouble and anxiety, and this is my remedy, now where are the men to take the matter up, I have no doubt they will soon come to the front if they can only see there is money in it:—Open on the outskirts of the city a large yard to be used as an assorting yard with tracks from the railroad running into it, so as to handle as cheaply as possible, now put in from five to ten million feet of well assorted stock, and let it be understood that sales are nly made to dealers, this would at once command the good will and confidence of the retail men, and they would never overburden themselves with stock, knowing that for a slight advance, to cover cost of handling and other incidental expenses, they could at any time procure just such a car of lumber as they required.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |
| B. M. | |
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ¾ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

FEB. 25.—The demand for lumber has not varied much for some time past, and the market, though quiet, is in a general way pretty firm for good stock, but for inferior, in large lots, probably a trifle less would be accepted. In Ottawa there have been heavy sales made at about last years prices. It is expected that the building trade will be active here this summer and a large number of houses are to be built, so that prospects indicate a good demand here later in the season. We give below the receipts of lumber by all inlets for the local trade of Montreal, at Montreal, for the year 1884, with comparative figures for 1883, which show a decline of 5,143,556 for 1884 as compared with 1883:

1884.

| | | |
|---|---|---|
| Received by Canal | 34,614,000 | |
| " by G. T. R. R | 15,656,000 | |
| " by Harbor | 10,788,434 | |
| " by C. P. R. R | 10,670,000 | |
| | | 71,728,434 |

1883.

| | | |
|---|---|---|
| Received by Canal | 42,655,000 | |
| " by G. T. R. R | 11,200,000 | |
| " by Harbor | 11,657,090 | |
| " by C. P. R. R | 11,360,000 | |
| | | 76,872,090 |
| Less arrived last year than 1883. | | 5,143,556 |

Our prices here show no quotable change, and we continue to quote ex yard as under:

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Base, " " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 75@ 2 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

CORDWOOD.

| | |
|---|---|
| Long Maple | $ 6 00 |
| Long Birch | 5 50 |
| Long Beech | 5 00 |
| Tamarack | 4 50 |

## BOSTON.

The *Journal of Commerce* of Feb. 21st says:—Trade is moving along quietly, with a fair call for the between-season period. Prices keep about steady, and the outlook for the spring is quite good.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## CHICAGO.

AT THE YARDS.

The *Northwestern Lumberman* of Feb. 21st, says:—It is evident that but for the late snow blockade and the cold weather there would, by this time be a considerable movement of lumber. The weather conditions thus far this winter have been utterly opposed to a demand for or shipment of lumber. Outdoor work in the consumption of lumber has, for the most part been impossible. The snow and intense cold have prevented farmers from even visiting their market towns, wherever they live long distances away. Nothing has conduced to the early starting of the spring trade. And yet there is manifest a growing want of lumber on the part of the country at large. This results, probably, from the move that is being made by contractors and builders to improve the present opportunity of low prices to push building the present year. There have been abundant signs in this and other cities to justify this conclusion. Whenever there has been a slight mitigation of the temperature—a day or two of pleasant weather—building operations have taken a start; all the work possible has been crowded forward. The real estate men and the architects confidently predict an active building season. It is this anticipation of future consumption that is stirring up some business in spite of the weather. As soon as winter let go its grip a spurt of demand may be expected.

Prices are still in an undecided state. The lists stand the same as they have been all winter, and slight questioning has been indulged in about them from the fact that there has been so little trade that scarcely a test has been made. Lately, however, there has been more talk about prices. It is understood that the list is being cut from 50 cents to $1 a thousand, and that in special cases dealers do not scruple to make lower prices than such cuts indicate. It is very much as dealer can catch his customer; a matter of half a dollar, or more, is not allowed to spoil a trade. Small confidence in the integrity of prices is expressed, and fears are rife that the spring trade may develop further weakness. This fear is increased by the fact that several stocks in the district are to be forced on the market this spring by retiring houses. Such closings out are common to the spring season, but they hurt more when trade and prices are depressed. An open winter and an early spring would have helped trade this year by allowing the consumption of a large amount of stock; but those conditions must now be counted out, as factors in our conclusion. Everything is ahead. The stock on hand Jan. 1st is mostly in pile now. The hope of the season to come is in an extraordinary consumptive demand, which there is good reason to expect.

Receipts of lumber, shingles, etc., from Jan. 1st to Feb. 19th as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 960,000 | 182,000 |
| 1884 | 3,850,000 | 653,000 |

FROM JANUARY JAN. 1, 1885, TO FEB. 19, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 16,094,000 | 4,486,000 |
| 1884 | 26,076,000 | 3,176,000 |
| Increase | | 1,310,000 |
| Decrease | 7,982,000 | |

STOCK ON HAND FEB. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 589,442,064 | 583,228,906 |
| Shingles | 333,859,025 | 437,745,250 |
| Lath | 57,824,292 | 62,566,999 |
| Pickets | 2,927,264 | 1,516 999 |
| Cedar posts | 478,434 | 453,436 |

FREIGHT RATES TO EASTERN POINTS.

In effect from Nov. 13th, 1884, to March 1st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

| | |
|---|---|
| Chicago to— | |
| New York and common points, per 100 pounds | 32c. |
| Albany | 29c. |
| Boston and common points | 37c. |
| Philadelphia | 30c. |
| Baltimore | 29c. |
| Washington | 29c. |
| Buffalo and Pittsburgh | 18½c. |
| Erie, Pa | 18½c. |
| Dunkirk, N. Y | 18½c. |
| Troy | 29c. |
| Shenectady | 29c. |
| Wheeling | 18½c. |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ¾-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ¾-inch | 30 00@32 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 28 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 2 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ℔ M | 0 00@ 2 00 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## OSWEGO, N.Y.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 22 00@25 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. stripe | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## LONDON.

The *Timber Trades Journal* of Feb. 7th says: Prices at Wednesday's sale went very indefferently, and though the trade mustered in good force the competition was of the usual feeble character. The majority of the room were buyers, but it was the unreseved goods that brought them together, and even for these only very low prices seemed to suit. For some of the better descriptions the bidding was fairly well sustained: 3x9 Gefle in 1st and 2nd quality, at £14 5s. was hardly a high price, but the goods were not one of the leading shipments. Archangel 1st deals ranged from £16 5s. to £16 15s., which is a more satisfactory price to record than some that have come under my observation for equally choice goods. The Nyhamn best red battens at £10 5s. also were not badly treated, and there is doubtless a disposition to pay better prices for high class goods, but which the dullness of trade tends to check.

There was considerable quantities of hewn timber put up without reserve, and the bidding was slightly more brisk for these from the fact that such descriptions as were offered have not been very common at the public sales; the parcels we allude to were mostly Quebec stuff, of which some rather good ash went under 80s., the bulk of what was submitted realizing 75s. Red pine timber from the port named fared badly at 52s. 6d. a load, but the logs had nothing particularly attractive about them, and with such a full stock of pitch pine as the dock ponds now display it was hardly to be expected prices would be other than very low.

The same may be said of the yellow pine hewn stuff that came under consideration, and was dull of sale at 42s. 6d. a load, about as wretched a price as the market has yet witnessed. The general character of the sale throughout was indifference on the part of the buyer, though of course when a choice lot of some description, scarce in the market, was put up plenty were found to bid for it, with a correspondingly satisfactory result in the price. There was pretty general satisfaction expressed by London buyers that the sale had been spread over the two days, and an early termination to the proceedings afforded those who had correspondence demanding their attention time to get back to their office duties.

Things are said to be a bit active in the f.o.b. trade—at any rate, better than they were at the same time last year—and the continental demand is said to be fairly active, a considerable portion of whitewood having already been placed in Germany in anticipation of the forthcoming sawn wood duty, the particulars of which we furnished in our last.

Stocks of deals at the outports are stated to be very moderate, and less generally than they have been for several years, but we cannot say the same of those here. One with another, things are a shade worse in this repect than they were January, 1884; and, with a lessened delivery from the docks, the general admission is that trade has not improved with the commencement of the new year.

There is a very fair trade doing in certain goods, but, one with another, the business done is on a very confined scale.

The reduction on spruce stocks at the docks since the cessation of the import is something very marked, and can be only attributed to the extraordinary low prices the stuff has been sold at stimulating the consumption. Had the goods merely changed hands we should not have noticed such a lessening of the quantity as

the docks, and from that fact alone it is evident sales privately have been pretty brisk. Prepared flooring boards are some 70,000 pieces heavier now in the dock sheds than they were twelve months ago, about equal to a small shipload, a mere bagatelle in itself, though when we recollect that last year's winter stock was one of the heaviest for several seasons past, the obstacle to prices advancing offered by the present stocks can be better understood.

Pitch pine planks are less in stock now by some 6,000 pieces than they were February, 1884, but owing to the heavy import of ponded timber from the Southern States the price of the same stuff has been with difficulty sustained. Of the 15,000 loads now in the dock ponds represents about half of the total import of 1884.

Canadian sawn goods now in the docks are generally less than they were twelve months since, and pitch pine planks again are on the favorable side, and so with respect to wainscot logs, though the stock of these latter is an ample one for the present demand; in fact, last year's stocks are bad for comparison, exhibiting as they do what was remaining of the heaviest import of wainscot oak that has previously been known.

Lathwood is less in stock now, as far as the docks are concerned, than has been observed for some seasons past, but the dull state of the building trade will hardly allow of much hardening in the price of this commodity, though we quite expect to see the improvement made towards the close of last season fully sustained for good sound wood.

## GLASGOW.

The *Timber Trades Journal* of Feb. 7th, says:—Public sales of various wood goods have taken place during the week. At the Greenock sale on the 29th ult., transactions were very limited, and prices are not yet encouraging. The goods offered were American timber and deals and pitch pine.

Full reports of the mahogany and hardwood sales will be found amongst the mahogany reports.

The output from the Clyde shipbuilding yards last month compares well with that of January, 1884. There were thirteen vessels put into the water last month, measuring 10,760 tons, as against eight vessels, 6,340 tons, in the corresponding period of last year. But the quantity of work on hand at present is considerably under the amount that was in progress a year ago.

### AUCTION SALES.

On 29th ult., at Greenock, Messrs. Hunter, Sheriff & Co., brokers:—

Quebec yellow pine (superior)—
35 c. ft. av. per log 1s. 3d. per c. ft.
Do. red pine—
35 c. ft. av, per log 1s. 1½d "
Do. 2nd yellow pine deals—
11 to 16 ft. 8/9×3 1s. 5½d, "
Do, ends—
7 & 8 ft. 7/12×3 1s, 4d.
Miramichi, N. B., spruce deal ends—
2 to 3 ft. 3/11x2½ & 3 6¾d.
Pitch pine planks—
7 to 19 ft. 10/12x4 & 5 10¾d.

## LIVERPOOL.

The *Timber Trades Journal* of Feb. 7th says:—As the year progresses it does not seem to bring us much nearer to the good, or any rate the improved condition of things which all so fondly hoped would arise when the present year had been fairly started. There is still the same outcry about the limited demand for wood goods in the country, and that to secure any orders that may be moving in the country prices have to be accepted which leave the barest margin of profit, and in some cases this is cut down to the finest possible point.

This is evidently a most unsatisfactory condition of affairs, and we only look to a rectification of it by a large curtailment of imports. On the other hand, this is, in a great measure, impracticable, as shippers have made their arrangements long ago, and unless prevented by natural causes the goods will come forward. With regard to New Brunswick and Nova Scotia districts, from whence our large supplies of spruce deals are shipped, it is said the winter has been so far unusually mild, and in lieu of snows and frosts, which are so necessary for logging operations in the forests, that exceedingly mild rains have been the rule. This, however, may or may not be true, and time only can show what degree of truth there may be in these reports.

### LIVERPOOL TIMBER SALES.

On Wednesday last, the 4th inst., Messrs. Price & Pierce held their auction sale of hewn and sawn pitch pine, spruce deals, &c., when a good company was present, nearly all the local dealers being represented, and a fair sprinkling of consumers from the country also being in attendance.

Of the spruce deals offered rather more than one-fourth was sold, the remainder being withdrawn. The prices realized were:—

St. John, N. B., spruce deals—

| | | £ s. d. | £ s. d. | |
|---|---|---|---|---|
| 20 to 26 ft. | 3×11 | | 7 15 0 | per std. |
| 9 " 11 " | 3×11 | | 6 12 6 | " |
| 15 " | 3×9 | 6 10 0 | 6 11 3 | " |
| 12 " | 3×9 | | 6 10 0 | " |
| 9 " 11 " | 3×9 | | 6 0 0 | " |
| 9 " 15 " | 3×8 | | 6 0 0 | " |
| 20 " 29 " | 3×7 | | 6 0 0 | " |
| 19 " | 3×7 | | 5 15 0 | " |
| 15 " | 3×7 | | 5 15 0 | " |
| 14 " | 3×7 | | 5 15 0 | " |
| 13 " | 3×7 | | 5 15 0 | " |
| 9 " 15 " | 2½×7 | | 5 17 3 | " |

The pitch pine flooring not having arrived was withdrawn, the auctioneer preferring to sell it after inspection rather than put it up to arrive. The hewn pitch pine in store also was withdrawn.

RESULT OF AUCTION SALE AT LIVERPOOL, FEBRUARY 4TH, 1885.

Per San Carlos, from Pensacola (to arrive.)

1,438 logs sawn pitch pine, 30 cub. ft. av.—

| | |
|---|---|
| 16 in. & up | 15½d. |
| 15 " | 16d. |
| 14 " | 16d. to 15½d. |
| 13 " | 15½d. to 14½d. |
| 12 " | 14d. 13½d. |
| 11 " | 13½d. |
| 10 " | 13½d. to 13½d. |
| 9 to 11 " | 15½d. |
| Beam fillings | 15d. |
| Average price of cargo | 13 15-16d. |

Per Tabino, from Mobile:—

353 logs hewn pitch pine 111½ cub. ft. av.
253 " " " " 54 " spcl. shipment.
490 " sawn " " 39 "
342 pcs. pitch pine planks, 33,449 sup. ft.

The hewn at from 14½d. to 17¾d., av. 15¾d. per cub. ft.; the hewn (special shipment) withdrawn; the sawn at from 13½d. to 16d., av. 14¾d. per cub. ft.; the planks at from 11d. to 13d. per ft.

## TYNE.

The *Timber Trades Journal* of Feb. 7th, says:—Dullness appears still to be the main feature of the trade at the present time in these northern parts, and little so far has occurred since the new year to enliven the monotony. Arrivals have been very small and unimportant, consisting mainly of pit-props and mining timber, and some steamers from Gothenburg and Christiana with usual assortments of wood goods; one cargo has arrived from Pensacola with pitch pine timber and deals, and will be followed shortly by several more from the same place.

It is, perhaps, a little early to prophesy the probable state of the market during the next few months. So far but little has been done in this district by way of placing goods for f.o.w. shipment. The prospect is not very encouraging on the whole. As yet the shipbuilding trade is very quiet, and although a few orders have been given out recently, they are not sufficient in amount to make any great demand for some time to come. In the housebuilding trade quietness still reigns, and is likely to this season the property market not being lively.

Your readers will notice the Northeastern returns still show a downward tendency, which is a sufficient indication of the state of trade in the district.

**Storm Signals.**

As the coming of a great storm is heralded by the display of cautionary signals, so is the approach of that dread and fatal disease, Consumption of the Lungs, usually announced in advance by pimples, blotches, erruptions, ulcers, granular swellings, and kindered outward manifestations of the international blood poison, which, if not promptly expelled from the system, attacks the delicate tissues of the lungs, causing them to ulcerate and break down. Dr. Pierce's "Golden Medical Discovery" is the great remedy for this, as for all diseases having their origin in bad blood. It improves the appetite and digestion, increases nurition and builds up the wasted system.

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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

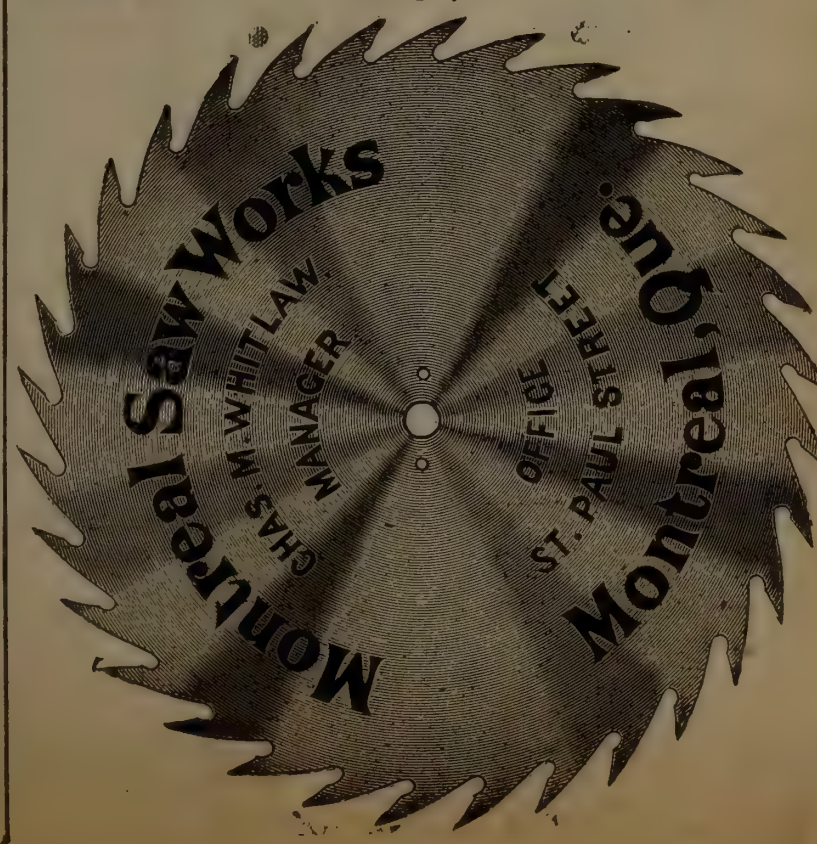
TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.

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# LUMBERMEN'S TENTS

*The Cheapest and Best in the Market!*

32 First Prizes AND 6 MEDALS.

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Tents, Flags, Tarpaulins, Waterproof Goods, Camp Furniture, etc., etc.

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**At Toronto, Ont., and St. John, N.B., we made the best Display of Tents ever shown in Canada—and we never substitute an article inferior to sample in filling orders.**

**We control "THE LATOUR PAT." for Camp Furniture, the best on earth. The only Gold Medal ever given for this class of goods was awarded to the Latour Camp Furniture at Toronto in 1882.**

## SAIL-MAKING.

**We have secured the services of the best practical sail-maker in Canada. Orders in this line will receive prompt and satisfactory attention, as is usual with all orders entrusted to us.**

**Agency for the WILDERMUTH BED SPRING, the best in the Market.**

A. G. FORGIE, MANAGER,

## International Tent & Awning Co.,

***184 SPARKS STREET, OTTAWA.***

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*Something New in Leather Belting*

**To Mill Owners, Lumbermen, Manufacturers**

***USE ONLY***

# Dixon's Patent Lap Joint Star Rivet Leather Belting

To be had only from

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**Send for Circulars and Price Lists.**

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# LUMBERMANS' TOOLS!

**Which took every honor awarded at the Centennial Exhibition.**

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PETER ROBERTSON, Chaudiere, Ottawa.

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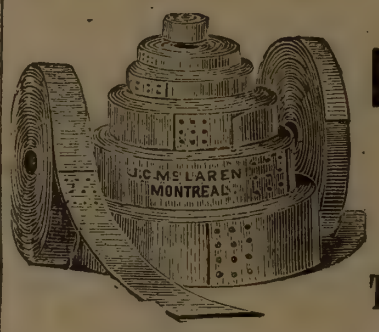


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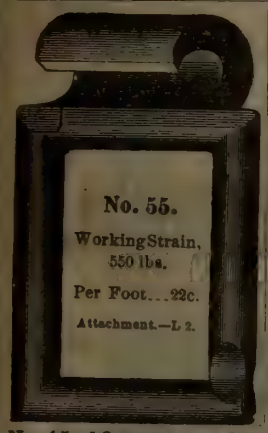
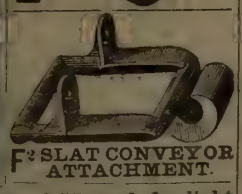
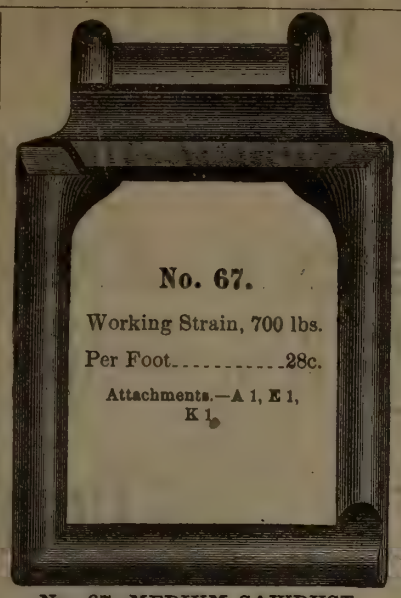
# EWART'S PATENT LINK BELTING

For CONVEYING, ELEVATING, and TRANSFERRING every Product of a Saw Mill, into, through and out of the mill.

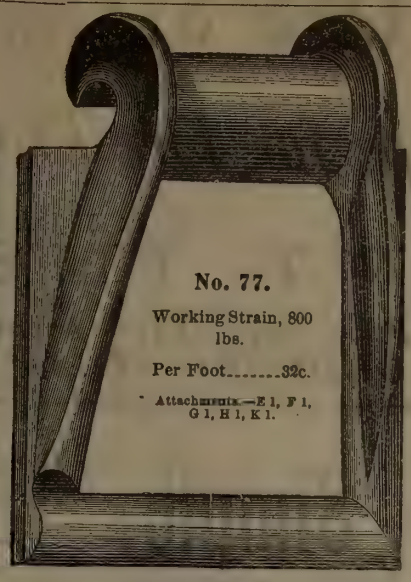




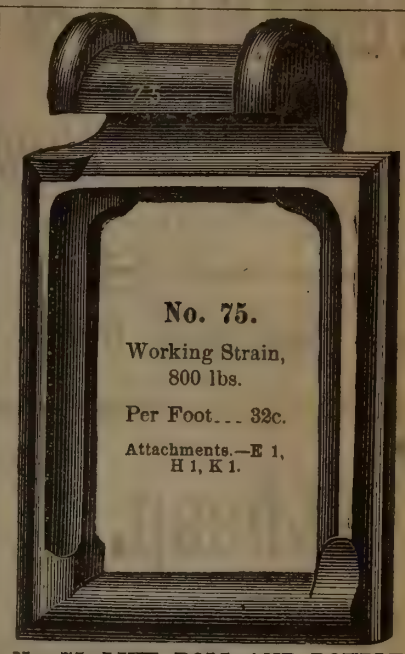

No. 45—16 cents per foot and 55 used for light Sawdust Conveyors.



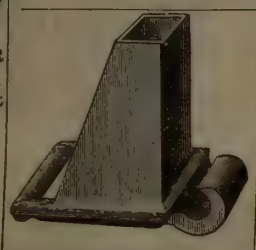

No. 67—MEDIUM SAWDUST CONVEYOR CHAIN.




No. 77—CONVEYOR AND LIVE ROLL CHAIN.



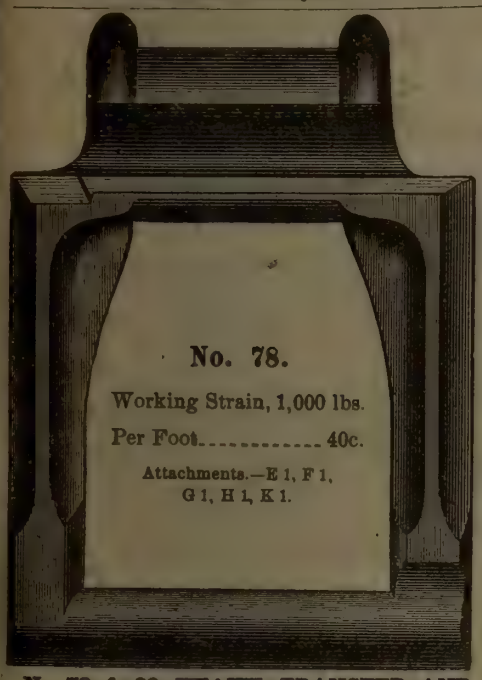

No. 75—LIVE ROLL AND DOUBLE STRAND ELEVATORS.


H¹ TRANSFER ATTACHMENT.

H⁴ TIE & POLE LOADING ATTACHMENT.

# GIANT CHAIN for Log Haulups

*And Main Refuse Conveyors for Large Mills.*

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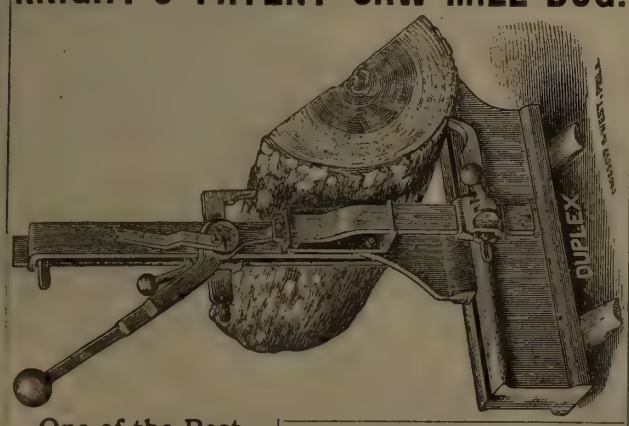
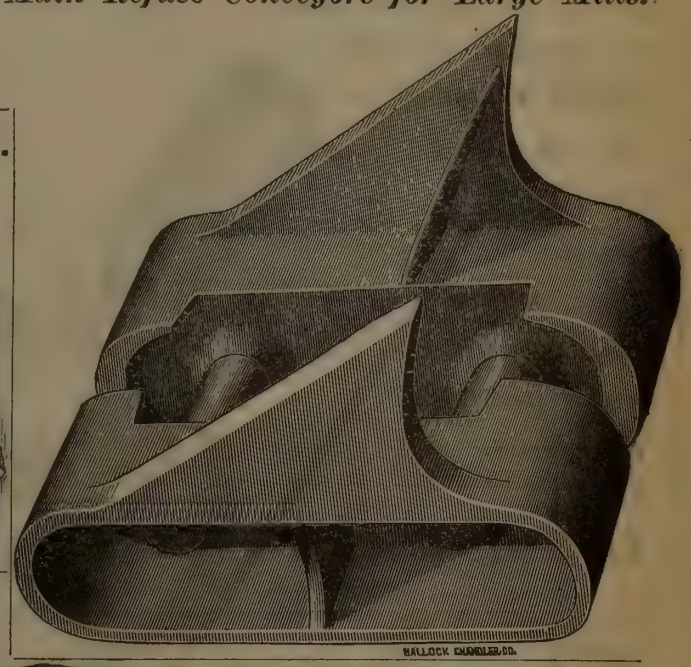
## KNIGHT'S PATENT SAW MILL DOG.




One of the Best Log and Board Dogs made.

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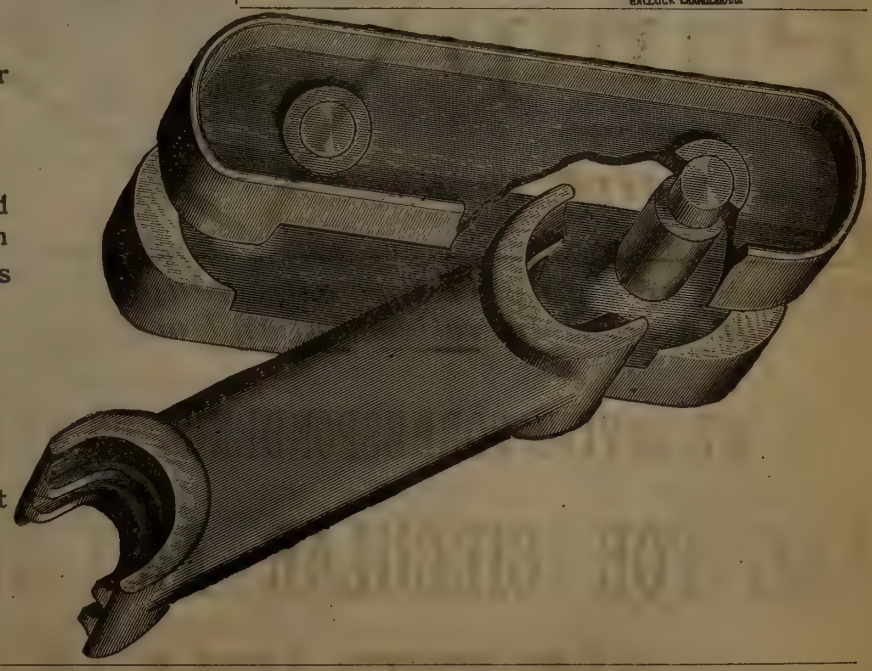
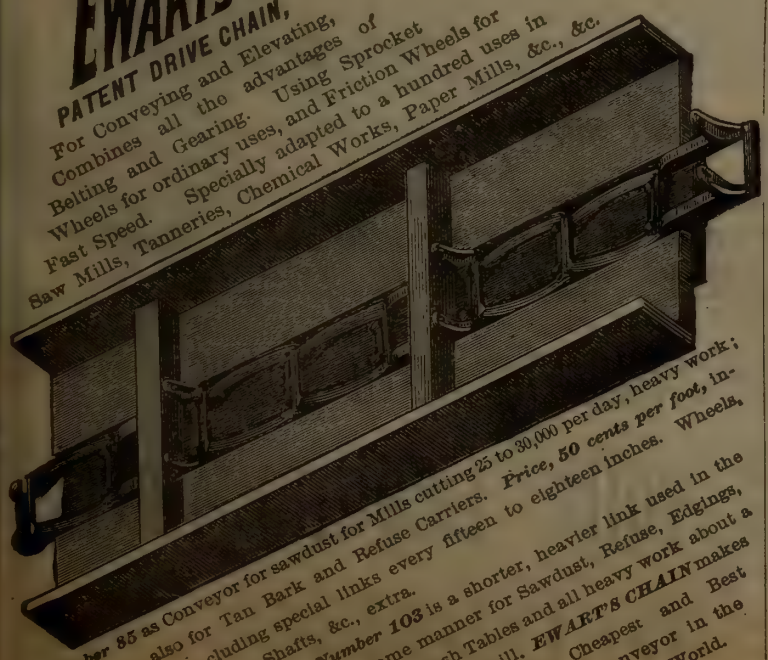
Easily Repaired if broken all links being Interchangeable.

Special Prices for Giant Chain during next 60 Days.



## EWARTS PATENT DRIVE CHAIN,

For Conveying and Elevating, Combines all the advantages of Belting and Gearing. Using Sprocket Wheels for ordinary uses, and Friction Wheels for Fast Speed. Specially adapted to a hundred uses in Saw Mills, Tanneries, Chemical Works, Paper Mills, &c., &c.



*Number 85* as Conveyor for sawdust for Mills cutting 25 to 30,000 per day, heavy work; also for Tan Bark and Refuse Carriers. *Price, 50 cents per foot,* including special links every fifteen to eighteen inches. Wheels, Shafts, &c., extra.

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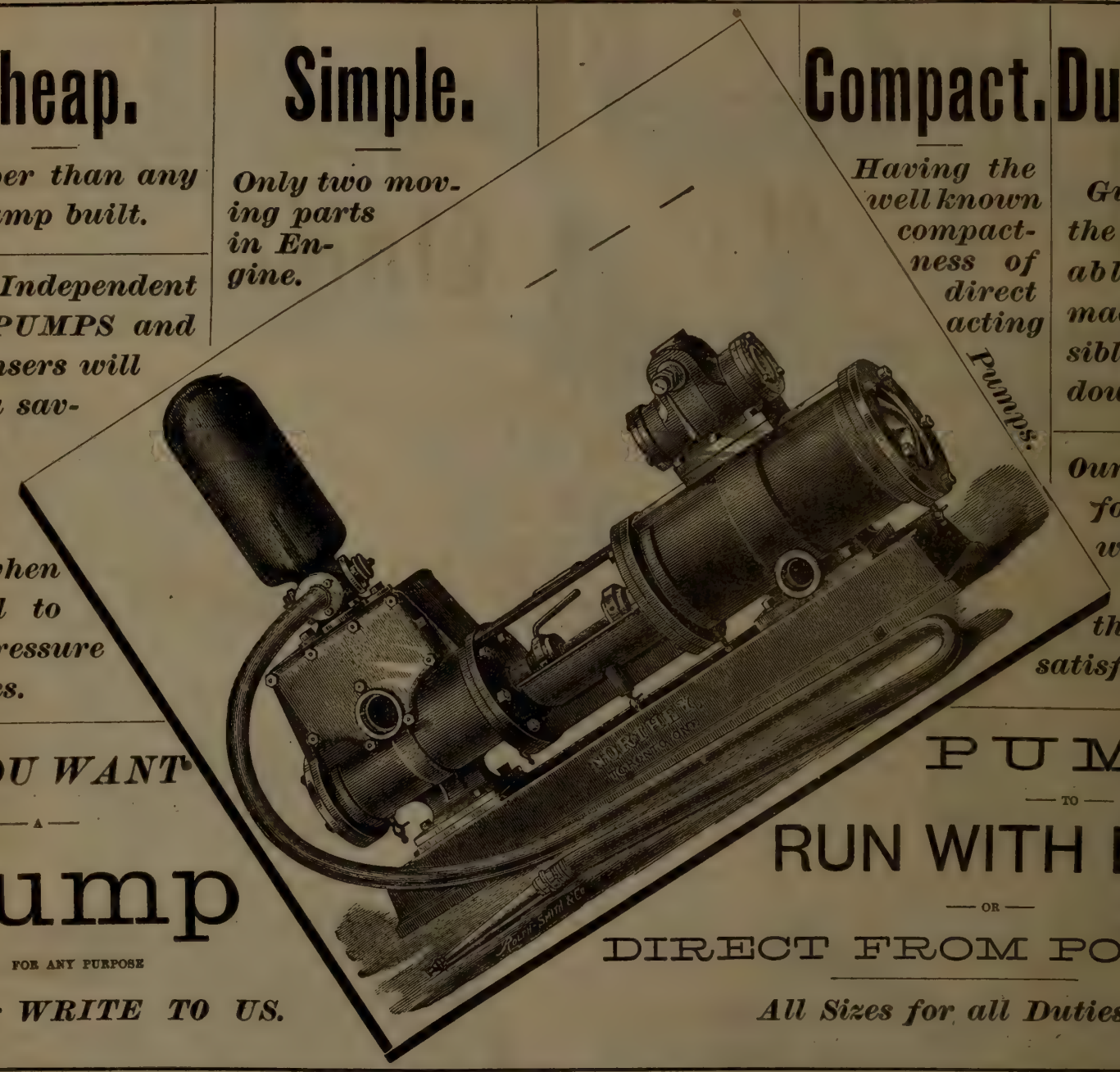
***Only two moving parts in Engine.***

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***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

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***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

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10—MEDALS—10

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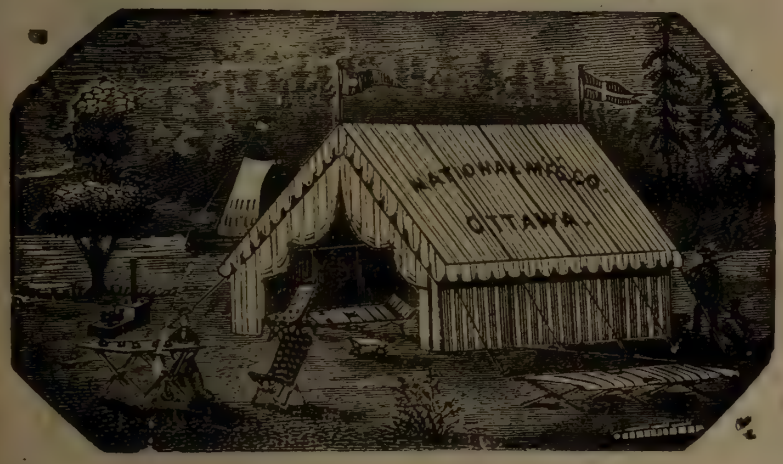
# TENTS, MARQUEES,

*And CAMP FURNITURE.*

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OFFICE OF THE INDUSTRIAL EXHIBITION ASSOCIATION,
TORONTO, MARCH 10, 1884.

*The National Manufacturing Co'y, Ottawa:*

GENTLEMEN,—In reply to your enquiry, I beg to say that the highest awards made at the Industrial Exhibition for the years 1881, 1882, and 1883, for Tents, Marquees and Flags, were to your Company, being a Silver Medal for each year. Last year, 1883, was the first in which a medal was specially offered for Camp Furniture and Equipages, and it was awarded to the National Manufacturing Co'y, of Ottawa.

I am, your respectfully,
H J. HILL, Manager and Secretary.

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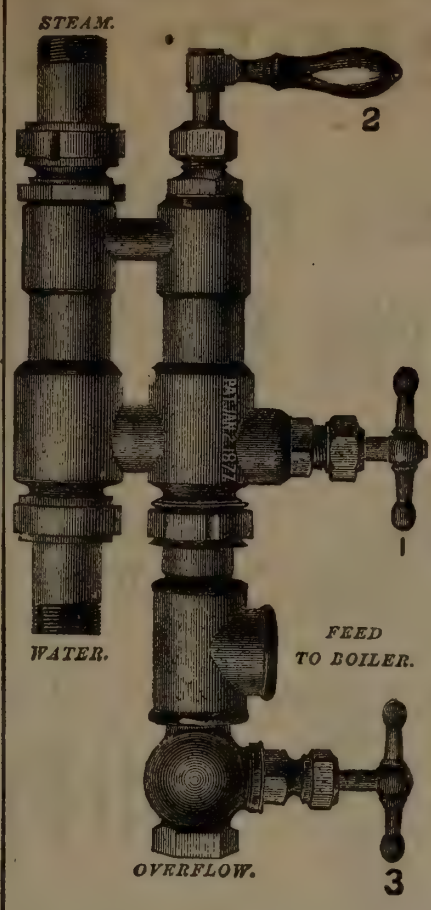


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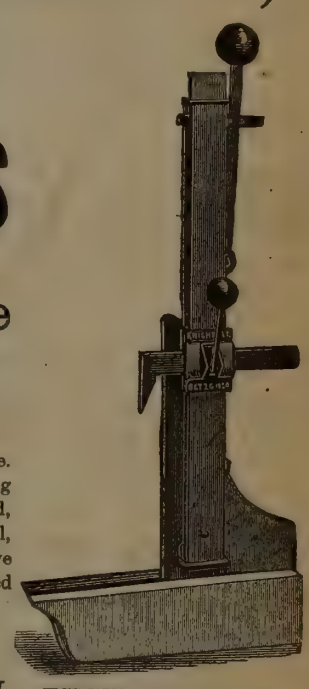
**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Mfilldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Cants cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



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Manufactured by HUGH GIBSON, CHATHAM.

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# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

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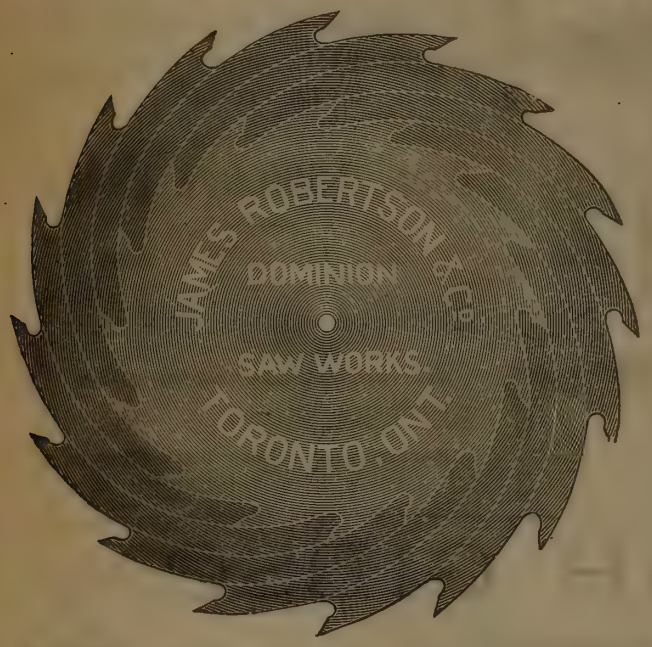


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MR. NORMAN, PERTH, ONT., June, 1883.
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A. NORMAN, ESQ., OTTAWA, September 3rd, 1883.
DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way. Yours truly, R. E. HALLIBURTON.

A. NORMAN, ESQ., PETERBOROUGH, October 15th, 1884.
DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured my cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good. Yours truly, J. GREEN.

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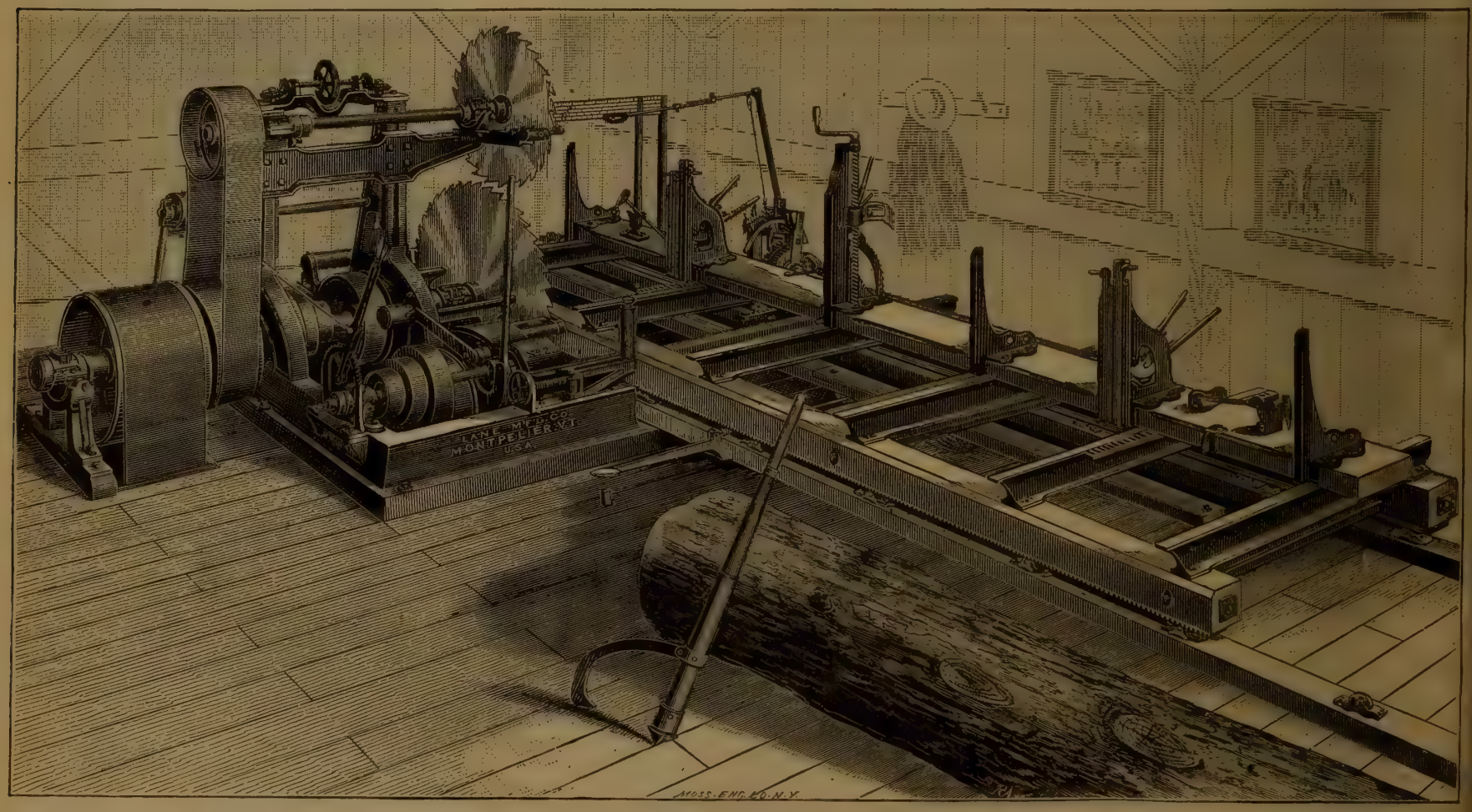


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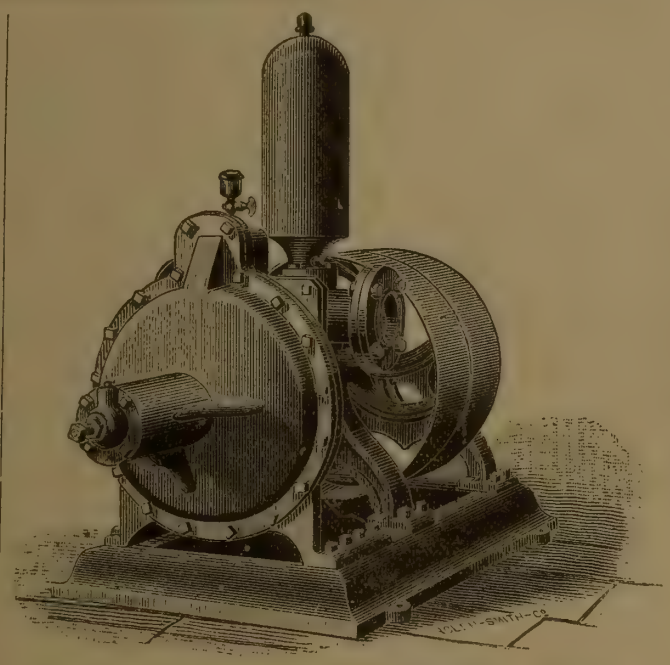

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**VOL. 5. PETERBOROUGH, ONT., MARCH 16, 1885. NO. 6.**


## NORTHWEST FORESTRY.

The subject of tree planting in the Canadian Northwest, which received considerable attention a year or two ago, has of late almost entirely been lost sight of. The Forestry Association, so far as known, exists but in name, and if any good has been accomplished by it there are no outward indications of the fact.

And yet there is no subject which should engross more attention, having, as it has, not only an important bearing on the appearance of our cities and towns but also on the comfort of the settlers on our prairies.

Our attention has been again called to this matter by a summary which is contained in the last report of the Department of the Interior of a preliminary report of Mr. J. H. Morgan upon the subject of the protection of the present forests of the Dominion and the planting of trees on an extensive scale.

Much of the document is taken up with the question of the preservation of Canadian forests from fire, and does not so particularly concern the Northwest as that relating to the planting of trees. He declares that the climate of the Northwest is one of the healthiest in the world, but it is very dry, and the territory therefore ought to have a large proportion of its area in woods. With this want supplied, there appears some reason to believe that early frost visitations would be avoided, and that one of the elements of uncertainty in connection with agriculture in this country would be almost entirely removed. Mr. Morgan is satisfied that woods would have most beneficial and ameliorating effect on the climate. They would temper the cold winds of the spring and retard the autumnal frosts. It is a well established fact that the atmosphere of the woods in summer is much cooler, as well as moister, during the day, than in open field, and that the reverse is the case during the night. So soon as the sun's rays leave the surface of the earth it chills very rapidly, and often in a dry climate, while the air at, say five feet from the ground, is moderately warm, the temperature of the earth is chilled by radiation, and often goes below the freezing point, while the air, at an elevation of five or six feet, is several degrees warmer. The presence of woods would often avert these early frosts, more especially if the woods occupied the higher grounds. The moist, warm air from the woods would spread over the fields after the sun had gone down, and act as a protecting mantle to the unripe crops, and become the means of averting what otherwise would be an almost certain danger. The drier the atmosphere the more liable are we to refrigeration of the earth's surface; consequently, the greater and the more imperative the necessity of planting forest trees in our Northwest. Of the great necessity of tree planting on our prairies there can be no practical doubt, fuel and shelter being among the first wants of the settlers. In respect to the contention of some scientists, that the character of the soil of some of the high plains is such that trees will not grow thereon, he cites, in refutation, the experience of the pioneers of the adjoining territories and states, which affords promise of unquestionable success. From the Geological Survey report for 1875 Mr. Morgan quotes Dr. Bell's remarks on the relations of the different classes of soils to the wooded and open areas of the country, to show that the timber is found in those parts where the soil has capacity for receiving and retaining moisture, while those parts which are dry and the soil sandy and gravelly, are, as a rule, bare of timber. One of the greatest barriers to the success of arboriculture on our prairies is want of moisture. So soon, however, as the land becomes broken up, the rains will penetrate and remain on the soil to a much greater extent than at present. In Nebraska and Dakota millions of trees have been planted, and there are now to be seen maginificent groves of trees where, ten years ago, there was nothing but dreary waste. In Minnesota there is a Mennonite settlement where, in seven years from the turning of the first sod, the settlers were enjoying the shade of large groves of trees which they had planted. Similar instances are also found in Iowa.

Mr. Morgan regards the work to be done as one of great magnitude in which the Government, the railroads, the land companies and the people must all take a share. The Government should take the initiative, the first and most essential step being the establishment of experimental forestry stations at several points in Manitoba and the Northwest Territories. The aim of these stations would be to furnish a scientific as well as a practical foundation for a rational management of the forests, to examine the advantages which one method may have over another, and to establish an economical and profitable system of forest administration. Mr. Morgan thinks immediate steps should be taken towards the establishment of these experimental stations, which would be of great benfit to us, and solve many of the problems that otherwise might lead to failure. From these stations could be learned what trees could be grown; their adaptability to the soil; a study could be made of the animal and vegetable foes of trees, and the means to combat them, while reliable tables of increase could be acquired, as well as practical methods for valuing forests. They could also be used as nurseries for raising and supplying the young trees to settlers, and as meteorological stations. Various suggestions are then given as to the selection of sites for these stations, the preparation of land for the planting of shelter belts around them, the preparation of the soil for the planting of young trees, and for directing the progress of the work at the different stations while in operation.

Having shown that the denuding of the country of its trees causes an abnormal condition of the rivers and streams, Mr. Morgan proceeds to inquire whether the reforesting of a fair proportion of the plains would not cause a change in the level of the waters in the Red river, the Saskatchewan, Assiniboine and other rivers now subject to extremes of high and low water, and thinks it may reasonably be presumed that if their banks and the neighboring hills were clad with trees, whose foliage would protect the earth from the sun's rays and from the hot winds, the mosses and porous earth would hold and store the water till it found its way gradually to the rivers, preventing floods, causing a more regular water level, prolonging the season of navigation, and contributing largely to the prosperity of the country.

In concluding his report, Mr. Morgan says it is not too late to repair much of the damage that has been done by the destruction of our forests. Regulations for the use of the timber might be made without injury to the legitimate lumber trade, and the replanting and establishment of artificial flowers may undoubtedly be made profitable for private as well as public enterprise. The forests of Manitoba and the Northwest, now being slashed and wasted with great recklessness, should be kept as permanent reserves to supply the wants of settlers, the mature trees only being cut down, and their branches left to litter to the ground, acting as conductors for the prairie fires. All our present forest land should be carefully surveyed, laid out in districts and charted, and the character and profile of the land described. Timber experts or competent wood rangers should be sent to examine, appraise and report on their value and availability. Enough has been shown, Mr. Morgan believes, to make it evident that it is the duty of the Government to adopt immediate measures to arrest the further destruction of our remaining forests, except under some very improved system of supervision; to replant, where practicable, the high lands formerly covered with forest trees, and to adopt some system of forest plantation for the great prairie regions of the Northwest.

In any system that may be adopted by Canada, special care should be taken to make provision for the fullest enforcement of the laws. By this means only can we expect to see our remaining forests protected from utter destruction, new ones produced, and our prairie country beautified with groves and plantations. Almost all the civilized nations of the old world long ago realized the danger that their improvidence and carelessness had caused, and have taken the most thorough and systematic steps towards the protection and reproduction of the forests, and in this have shown a striking contrast to the wastefulness and neglect that have characterized the conduct of those who have had control of the great forests of America. If we would keep up with the march of progress and civilization of our time, if we would do our duty to the noble heritage with which God has endowed us, we must no longer defer a work which is of such paramount importance and so absolutely essential to our prosperity as a people.—*Winnipeg Times.*

## BELT vs. WALL.

Speaking of the prejudice that existed only a few years ago against high speeed—speed that would at the present time be considered common, or even slow—an engineer relates his experience in speeding up a large mill engine. The engine being overloaded at its present speed, by his advice it was speeded higher. Upon starting up after the change, there was an unaccountable noise from the belt, which those present attributed to the high belt speed. The engineer being busy about the engine, advised that they look elsewhere for the trouble, and, while still too much occupied to investigate the cause of the noise, about a yard of plastering came tumbling down, filling the air with a cloud of dust, and bringing about a not entirely orderly retreat of every one but the engineer, who had advised the change, and was superintending the starting up at the increased speed. Stopping the engine by means of the governor rod, and looking around, he found that when changing the pulleys on the line shaft the wall had not been cut away sufficiently, and as a consequence that the belt came in contact with a timber, with the result mentioned. Cutting away the wall removed all the obstructions to the increased speed.—*American Machinist.*

## Big Fire at Albany.

ALBANY, N. Y., March 1.—The immense freight depot at the Albany & Susquehanna Railroad on Gansevoort street, 600 feet long, and well filled with freight, was totally destroyed by fire to-day together with 15 loaded cars. It is thought the Delaware & Hudson Company's loss will be $50,000. About 40 cars were damaged. The West Shore Company owned most of the freight and the Delaware & Hudson Company the greater part of the cars. The West Shore will lose $50,000, making the loss $100,000 to railroads. The Albany Aniline and Chemical Works' west building was almost entirely destroyed, involving a loss of 3125,000

## Bell Telephone.

WASHINGTON, March. 3. — Commissioner Butterworth has rendered a decision in the great telephone interference case of Bell v. Gray, McDonough, Veelkler and others. The case involved the question of priority of invention of the telephone. The commissioner affirms the findings of the board of examiners and awards the priority of invention to Bell in all claims of importance.

### THE TIMBER CARRYING TRADE.

The old prejudice against timber-carrying is not yet, perhaps, wholly eradicated. In times gone by, when wood-built vessels only were in fashion, as soon as a ship went out of class at Lloyd's, and would take too large a sum to put her back on a good letter, though still easily rendered seaworthy, she, as a matter of course, went, probably by transfer, into the timber trade, and, perhaps, for many years continued to make her two voyages out and home as regularly as any first-class vessel could have done. We could name many ships that did so, and perhaps the latest example of this kind was the old Marco Polo, of not inglorious memory, which finished her career last year by no fault of her own. But in those days timber ships came to be regarded as the *canaille* of the trade. Commanders of higher class vessels, who were eligible for a freight of more precious or more perishable commodities, treated them with something like contempt, though, perhaps, glad enough afterwards to get the chance to command one themselves. At all events, they were a sort of nautical *refugium peccatorum* for captains who could get no better berth, till Mr. Plimsoll appeared on the scene, and put an end to this ancient institution, by such a severe weeding out that our old ships, and their trade with them, went into the hands of foreigners—whether for good or evil we need not here discuss—till steam boldly entered the list and took up the timber trade; eventually thereby effacing foreign rivalry, and bringing the carrying trade chiefly back again to British bottoms, when, unluckily, there seems little or nothing to be got by it.

But to account for the great fluctuations in the corn carrying trade, not afiecting the freight of timber, there is, pereaps, a sort of prejudice still adhering to the timber-carrying, even with iron steamers, and it is probably not considered to be any recommendation to a vessel for the transport service, for instance, that she has been employed in the timber trade. There is possibly a fort of *esprit de corps* in this. If a captain chooses to accept a low freight for grain, he is still in the corn trade. He loses no caste. He cannot be spoken of as the commander of an old timber droguer, and possibly the prestige of his ship in some prospective employment may be of more value to him than the difference in freight on a solitary occasion. We do not say it is so, but it may be so; and how else can we account for the fact that a ship accepts a freight of 5s. with a port under her lee, as it were, and within a couple of days' run, where she might, at any rate, get double as much?

That increasing facilities multiply trade no one doubts; but it may be argued that the American timber trade has been more injured than aided by the use of steam in ocean timber-carrying. In the days before mentioned, when we were paying three guineas per standard from the Gulf of Bothinia, 70s. to 75s. was the rate from the Gulf of St. Lawrence and Quebec. The difference in favor of Europe might be estimated at 15 to 20 per cent. But when we see that 50s. can still be obtained from the St. Lawrence ports, while from the Gulf of Bothnia to London is done at 25s., we know that Canadian woods are more heavily handicapped, in contending in our markets against the Baltic, than they used to be; and from Norway to the east coast 15s. per standard by steam is about the average rate. The worst is that while we are trying to account for contrarieties in trade that seem to be out of order with its natural laws, there is no appearance of any new force or stimulus to drive the whole forward in a steady current which might be expected to level in good time all inequalities by offering employment, each in his own groove, to all.

Prices still tend downward in the timber trade at least, and the business done is on a smaller scale. Not much, perhaps, but enough to show that the turn of the beam is the wrong way. And with corn it is the same. Six weeks ago, for instance, wheat took a little start upwards, and solemn farmers were seen to smile and look pleasant. But the advance could not be sustained. A fornight ago it averaged still 33s. 9d. per quarter, but the accounts made up by the Board of Trade last Monday from the returns of 200 markets gave the average at 32s. 4d.

If the loss of the farmer were the gain of the laborer, there would be a social recompense, and trade would rather gain than lose by the transfer. But all experience teaches the other way. Bread is, or ought to be, cheap enough; but the moneg to buy it, and to lay out in other commodities —ay, there's the rub!— that, unhappily, seems to be getting scarcer and scarcer, among our industrious classes, every day.—*Timber Trades Journal.*

### CONCRETE PAVEMENT.

The well-known Belgian system of street pavement appears likely to be superseded—especially in those cases where the first cost is not a matter of overruling consideration—by a new and improved method of concrete pavement covered with a wooden cushion or carpet, such as has already been extensively adopted in portions of London, Paris, etc. The roadbed is first covered with a six-inch coating of concrete, composed of Portland cement and broken stone, finishing off with a top dressing of the cement and of fine gravel or sand, and upon this are laid blocks of common red pine of the size ordinarily used in the Nicholson pavement. Between these blocks are left spaces about one-third of an inch wide, into which is poured bitumen, or asphalt, for an inch in depth; this fastens them to the foundation of concrete and to one another. After setting, the crevices are filled with Portland cement, and the whole covered with a fine sharp gravel, which is ground into the pores of the wood and forms a protective coating. The wooden blocks are previously treated with creosote, to protect them from decay, and to prevent them from swelling on becoming wet; a space of three inches is also left between the wooden blocks and the curbing on each side, as a kind of expansion joint.—*Boston Journal of Commerce.*

### PRESERVATION OF WOOD.

The decay of wood when exposed to the action of time and weather, is the result of a sort of fermentation process produced by the action of heat and moisture in the watery and albuminous ingredients of the wood, which gradually converts the sound timber into a rotten mass and renders it useless for any mechanical purpose, this process at the same time being assisted by the boring insects that make their homes within the cells of the decaying wood and live on the nutriment of the juices.

The fence builder is lead to believe that a post will last a greater length of time if only set opposite in the position from which it grew. A coating of oil and charcoal is supposed to protect the posts that enter the ground till not a man will live to see them rotted. Heating till quite a depth has been converted into charcoal has not prevented the process of decay, or kept the insects from eating the cooked food within. A change that will make use of the whole material must meet a process of preparation that will reach the entire depth of the wood. Timber that has been steamed under a pressure of one hundred pounds to the square inch must feel the effects of heat in all the liquid ingredients contained within the pores, especially when the pressure is reduced and the vacuum pumps put on.

In the creosote process the timber is confined within a large cylindrical boiler and held under a pressure of steam until it has penetrated the wood and vaporized all the fluids within the pores. The pressure is then removed, even the atmospheric pressure, when the creosote is injected and forced into the wood by raising the pressure as before. The object of every rational treatment is to harden the albumen contained in the fluids within the pores of the wood, and nothing short of a complete change, making a different solution entirely, will ever arrest fermentation and destroy all the germs of animal and vegetable life and prepare the woods to resist the effects of weather.—*Boston Journal of Commerce.*

**Tall Oaks from Little Acorns Grow.**

Great and good results often spring from smal deeds and so fatal diseases come of a seemingly trifling neglect. Colds neglected often lead to serious catarrhal troubles. If this is your case lose no time in becoming acquainted with Dr. Sage's Catarrh Remedy. Its healing virtues will surprise you. It is simple, efficacious, speedy, sure. Dull, heavy headache, obstruction of the nasal passages, discharges from the nose into the throat are symptoms of this horrible complaint.

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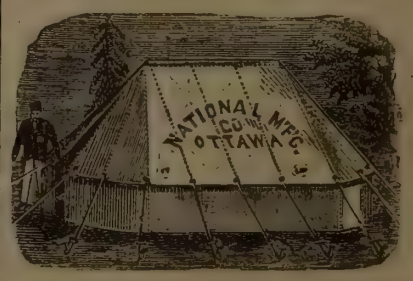


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TESTIMONIAL.

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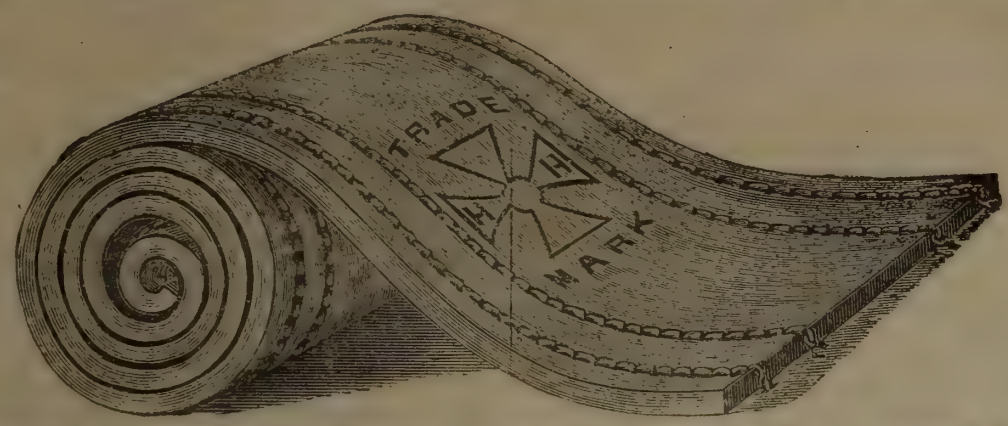
Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




TESTIMONIAL.

Peck, Benny & Co., Canal Horse Shoe and Nail Works, Montreal, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT.
Supt. H. S. & H. N. Dept.

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***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
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25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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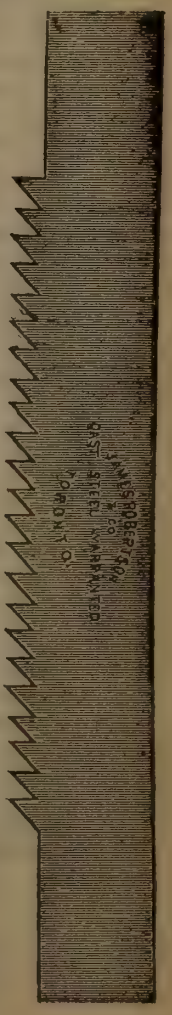


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### THE OUTTHROW OF A PULLEY.

It does not seem possible that any two mechanics should disagree on the outthrow of a pulley when being driven with a high speed. Every wheel that is out of balance has a heavy side, and one that is light, which are directly opposite to each other, and it is towards one or the other of these sides that the outthrow is claimed to be found by those who have made experimental study of this matter. It would seem that in an unbalanced wheel that the centre of gravity would be off from the central line of the shaft, and bring the effects of the whole pulley like a stone in a sling, with a tendency to spring the shaft toward the heavy side and increase the distance between the centre of gravity and the line about which the wheel is turning. This very feature is noticed in lathe work, and a shaft that throws out badly by its pulleys is not remedied by increasing its speed. But take the contrifugal switcher and notice how readily it will adjust itself with an unbalanced load. This hydro-extractor stands in a vertical position and can rock about in an elastic bearing at the foot, and if the sling stone principle could have its hold for an instant the whole machine would be thrown off its centre toward the heavy side.

There is another matter that must be taken into account in balancing the moving parts of any machine while driven with great velocity, and the advocates of high speed must give these forcus time to act, or the effects of any cause may likely be found acting in a different direction than the cause that produced it. Take the force of gravity, for instance, and notice its effect on any single atom in a revolving wheel. If the plane of rotation is level, this downward tendency that gives weight to a substance acts directly to one side or at right angles to the direction of motion, and neither assists at one instant in drawing the particle forward nor holding it backward at another. If the axis of the wheel is inclined from its vertical position, this particle not only rises and falls with the force of gravity but travel in an elliptical path with reference to the former surface. Now if gravity required the least instant of time to act, this revolving atom would no longer balance the one directly opposite, and as far from the centre on the other side. Unless revolving in a level plane every particle of material, when they arrive on the descending side of an inclined wheel, would not have the downward effect on the pulley as they will on the similar portions of the ascending side, and the effects will be similar to those seen in the gyroscope, to bring the axes not toward the heavy nor to the light side, but around a vertical axis, leading the centre of gravity in a spiral-shaped path till the wheel is steady and level with the axis in upright position. If the contrifugal force, or the outthrow of a pulley, should have a similar tardiness in its action, the speed of rotation could be such that the effects of the outthrow would be brought in a direction to bring the wheel into its central position instead of throwing it off its centre of rotation.

In balancing pulleys on the ball-and-socket joint, the tardiness of action is easily observed. A force applied to true the wheel has the effect of one that is taking place in some othe part of the pulley, and if the combined efforts the centrifugal force of every particle, or the outthrow of the whole wheel were to manifest themselves, as the forces appeared on the ball joint, the mechanics would have reason to disagree, and it would be doubtful if the outthrow would be exactly to the heavy side or to the light.—*Boston Journal of Commerce.*

### HEAVY AND LIGHT TOOLS.

There is a general demand at the present time, from manufacturers and machinists, for strong, powerful tools, capable of taking as large cuts as the work will stand, and geared to the highest speeds that are practicable. Tool makers in all parts of the country are overhauling their patterns, increasing the weight of bedplates and frames, and adding to the stiffness in all directions, while at the same time feed-motions and driving gear are redesigned and made more powerful. In doing this, they are but complying with the strict requirement of the trade. Where such tools can be kept up to their full capacity, doing the work for which they were intended, they are undoubtedly the most economical, but there are many shops in which a tool of this class can bnt rarely be used to the full extent of its capacity. For many classes of work, however, such a tool is manifestly too clumsy and altogether unsuitable, as, for example, when an 18-inch lathe is needed for turning up a lot of light rings, or there is a large quantity of light work to be done. Light lathes for these purposes fill the bill both from the commercial and mechanical standpoint. Having strict regard for the character of the work to be done, the best tool makers have reached the conclusion that the should be about three different patterns for each size of tool. Of these, the first and most important is the machine which is capable of doing all that can be required of it, able, in fact, to do all that the work will stand. The second or intermediate tool should be one adapted to a variety of work and to be useful in a wide range. Lastly, comes the light tool having the same capacity as the others, so far as size is concerned, but intended to do a class of work that could not be conveniently handled on either of the other styles of machine.

Buyers are now very frequently carried away with the fashion, and because it is the correct thing to take the heavy cuts with fast feeds, they select with a view to the number of pounds of iron which they get, and the strength and stiffness of the tool, rather than with reference to the character of the work they are doing and how it can be produced in the most economical manner. Practically, the price paid for the tool which will do the work in the best and cheapest manner is of no consequence. The difference between the lowest-priced machine tool to be found in the country and the best one which money can buy for a given purpose is so small, compared with the difference in the the amount and quality of the product, as to make the first cost an entirely secondary consideration.—*National Car Builder.*

### THE WHEEL WORK OF MILLS.

Mistaken attempts at economy have often prompted the use of wheels of too small diameter. This is an evil which ought carefully to be avoided. Knowing the pressure on the teeth, we cannot with propriety reduce the diameter of the wheel below a certain measure.

Suppose, for instance, a water wheel of 20-horse-power, moving at the pitch line with a velocity of 3½ feet per second. It is known that a pinion of 4 feet diameter might work into it with impropriety; but we also know that it would be exceedingly improper to substitute a pinion of only one foot diameter, although the pressure and velocity at the pitch lines, in both cases, would be, in a certain sense, the same. In the case of the small pinion, however, a much greater stress would be throw on the journeys (or journals) of the shaft. Not, indeed, on account of tortion or twist, but on account of transverse strain, arising as well from greater direct pressure, as from the tendency which the oblique action of the teeth, particularly when somewhat worn, would have to produce great friction, and to force the pinion from the wheel, and make it bear harder on the journals. The small pinion is also evidently liable to wear much faster, on account of the more frequent recurrence of the friction of each particular tooth.

That these observations are not without foundation, is known to millwrights of experience. They have found a great saving of power by altering corn mills, for example, from the old plan of using only one wheel and pinion to the method of bringing up the motion by means of more wheels and pinions of larger diameter and finer pitches.

The increase of power has often, by these means, been nearly doubled, while the tear and wear have been much lessened; although it is evident the machinery thus altered was more complex.

The due consideration of the proper communication of the original power is of great importance for the construction of mills on the best principles. It may easily be seen that in many cases a very great portion of the original power is expended, before any force is actually applied to the work intended to be performed.

Notwithstanding the modern improvements in this department, there is still much to be done. In the usual modes of constructing mills, due attention is seldom given to scientific principles. It is certain, however, that were these principles better attended to, much power that is unnecessarily expended would be saved. In general, this might be in a great measure obtained by bringing on the desired motions in a gradual manner, beginning with the first very slow, and gradually bringing up the desired motions by wheels and pinions of larger diameters. This is a subject which should be well considered before we can determine in any particular case that ought to be the pitch of the wheels. In the case above alluded to, where the supposition is a pinion of 4 feet diameter, or of 1 foot diameter, it is obvious that the same pitch for both would be prudent; that for the small pinion ought to be much less than that which might be allowed in the case of the larger pinion. It is also equally obvious that the breadth of the teeth, in the ease of the small pinion, ought to be much greater than that in the case of the larger pinion.

It is evident, however, that although great advantage may often be derived from a fine pitch, there is a limit in this respect, as also with regard to the breadth.—*Buchanan on Mill Work.*

### WOOD-POLISHING WITH CHARCOAL.

A Paris technical journal thus describes a method of polishing wood with charcoal: "All the world now knows of those articles of furniture of a dead black color, with sharp clear cut edges and a smooth surface, the wood of which has the density of ebony. Bringing them side by side with furniture rendered black by paint and varnish, the difference is so sensible that the considerable margin of price separating the two kinds explains itself. The operations are much longer and much more minute in this system of charcoal polishing, which respects every detail of the carving, while paint and varnish would clog up the holes and widen the ridges. In the first process they employ only carefully selected woods of a close and compact grain; they cover them with a coal of camphor dissolved in water, and almost immediately afterwards with another coat composed chiefly of sulphate of iron and nut-gall. The two compositions in blending penetrate the wood and give it an indelible tinge, and at the same time render it impervious to the attacks of insects. When these two coats are sufficiently dry, rub the surface of the wood at first with a very hard brush of couch grass, and then with a substance as light as possible; because, if a single hard grain remained in the charcoal, this alone would scratch the surface, which on the contrary they wish to render perfectly smooth. The flat parts are rubbed with natural stick charcoal, the indented portions and crevices with powdered charcoal alternately with the stick. The workman also rubs his piece of furniture with a piece of flannel soaked in linseed oil and the essence of turpentine. This process repeated several times causes the charcoal, powder, and oil to penetrate into the wood, giving the article of furniture a beautiful color and perfect polish, and which has none of the flaws of ordinary varnish."

### WHEN TO CUT TIMBER.

The fact is becoming fully recognized, says the *Lumberman's Gazette*, that the durability of timber depends very materially on the time of year in which it is cut, and there is no little diversity of opinion in relation thereto. This arises, probably from the fact that very few men engaged in getting out timber are enabled to follow it to the point of consumption, and thereby draw rational and practical conclusions regarding it. A gentleman named John H. Moore, at Arkansas Post, who has been long engaged in the business has made it the subject of study, and gives his conclusions to the Cincinati *Artizan* in quite a lengthy letter, wherein he states his experiments and conclusions as follows:

"I have been getting out timber for forty years, and long ago noticed that of the same kind of wood some lasted much longer than others; that some would rot at the heart while the outside was sound; that in deadening timber on land to be cleared some would rot all the sap off while the heart remained sound, while other trees would rot in the heart and fall while the sap was sound.

In looking for the cause of this, I concluded these effects were produced by the presence of sap. I find that after the fall of the leaf, the sap goes into the body of the tree, and that the only time when there is no sap in the body of the tree is after the leaf is fully grown and the sap is making new wood. I once supposed that this state of things continued until the leaf is ready to fall, but from an examination of oak wood, cut last September for steam purposes, I am induced to believe that it lasts but a few months—with us, probably from the 1st of June to the 15th of August, possibly until the 1st of September.

I have here some examples which I will give to your readers: In August, 1858, I cut some fence posts from post oak saplings about six inches in diameter. Some of these posts are still sound. Rails made from the same kind of timber cut in winter will not last over five years. In 1860, in August, I got some logs for a house; these logs are still sound, although they remained in the woods, after being cut, until 1868. In the winter of the same year (1860) I got out square timber of the same kind of oak to build a gin. They were not used, but were piled up, with slats between each layer, until, in 1866, they were found to be all rotten in the heart while the outside was sound. I am now using a piece of post oak as a bed for my engine, that was cut in the winter of 1868; it has been under cover, but the heart is rotten, while the outside is sound.

This proves to me that the cause of rot is not by exposure to the weather, but on account of the presence of sap. This is the conclusion that I have come to; timber lasts best when cut after the full leaf has grown, and before the sap returns to the body of the tree."

### FOREST FIRES.

The year before last was especially noteworthy or the sudden growth of public opinion favorfble to the preservation of our forests. The convention in Montreal was participated in so heartily by men of science, by statesmen, by farmers and by merchants, that there seemed good ground for the belief that the day of apathy had gone by and that a new area of conservative wisdom had been inaugurated in which our diminished forest wealth would be secured the protection and fostering care which had been denied it in the past. And, undoubtedly, the interest in the subject of which the Montreal gathering was so encouraging an indication did not prove evanescent. All over this continent, in the United States, North and South, and in every province of the Dominion—there has been an earnest desire to omit no measure or effort which would directly or indirectly contribute to the great end in view—the preservation and renovation, as far as possible, of our own bountiful timber supplies. During the last two years some admirabl. manuels for the instruction and guidance of the public have been issued by governments and individuals. The people can no longer, therefore, be said to perish for lack of knowledge Still more practical steps have been taken in the enactment and enforcement of certain regulations tending to secure the forests of the country from fire and other forms of waste.—*Montreal Gazette.*

### Chimney Stack Tops.

The tops of chimney-stacks need careful arrangement because the exit of smoke from them is very liable to be disturbed and hindered by gusts of wind; particularly when beneath other high objects in the neighborhood. There should be at the top of every flue an expanded space, within which most down draughts of air will rotate, and expend their force, without invading the flue below; and there should be louvred openings, so arranged as to direct the wind upward, and make it assist, instead of interfering with, or retard the exit of smoke.—*The Architect.*

* * * * Delicate diseases of either sex, however induced, radically cured. Address, World's Dispensary Medical Association, Buffalo, N. Y.

# Chips.

McCRACKENS, GALL & Co., Toronto, Ont., have dissolued, Geo. Gall continuing.

AT the sale of Crown timber limits in Quebec on Feb. 25th, $58,128 was realized.

THE Buckingham, Que., Pulp Company, with a capital of $50,000, has been incorporated.

THE site of the two new elevators at Duluth is being laid out, which looks like early work in the spring.

JAMES DIBBLE, of Campbellford, Ont., was recently killed on Wright & Ketcham's logging railroad, Midland County, Mich.

THE Harbor Springs, Mich., toothpick factory has purchased 650 cords of wood at Carp lake to be worked up into picks.

THOS. SCOTT, of Bloomfield, Huron county, Mich., was found dead in such position that it was seen he had been killed by the fallen branch of a tree that he was cutting.

THE first lumber sold on the east shore of Lake Michigan, north of Muskegon, was in 1842, by Ross & Hyde, the price being $5 a thousand. Wm. Lay, Chicago, was the purchaser.

THE Ottawa *Free Press* of Feb. 27th, says:—The South American lumber trade is improving and large orders have recently been received here, and shipments are being made daily. Lumber is moving satisfactorily at present, the railway companies furnishing all the rolling stock required.

A BILL has been introduced into the Michigan legislature the object of which is to prevent litigation in cases wherein logs float from streams on to bordering land during overflow. Time is given for removing logs to the extent of one year, and in case litigation fails to settle damages, arbitration may be resorted to.

A SINGULAR and fatal accident occurred on Monday last at the logging camp of Anderson & O'Brien, in the St. Croix district, to Jos. O'Brien, who was driving a load of logs to the landing. By some mishap he slipped from his load, fell so that the runner of the sled passed across his neck, completely severing his head from his body.

### Cottonwood.

The Greenville, Miss., *Times* says that there has recently been a noticeable growth in the use of cottonwood for the manufacture of furniture. Lately a steamer took 100,000 feet from that locality to Cincinnati for furniture making purposes. There is a selvage of cottonwood all along the Mississippi on the bottoms below Cairo. The timber hitherto has been considered of little value, but hereafter it will be utilized. The trees grow to great size, and will make a large amount of lumber to the log. At the local mills on the lower Mississippi it sells for $10 a thousand, and can be made very useful for negroes' cabins and any cheap farm building.

### The Weight of Logs

Can you tell me how much the average pine log weighs per thousand? L. This question has been repeatedly asked, and we have replied 8,000 pounds. We are now in receipt of a letter from an official of the Flint & Pere Marquette railroad, and it answers the question so definitely that we make public the figures it contains. Twenty-three trains were weighed. These trains were loaded with 6,283 logs, scaling 2,342,603 feet, and the average was 7,700 pounds per thousand. The writer of this letter says that the logs that are moved now are heavier than the ones that were moved 10 and 15 years ago, owing to the fact that at that period a better grade of logs was cut. He says he has no actual data of the weight of ordinary logs, but confiders 8,500 pounds per thousand a fair average. These figures are based on Scribner measure. Taking the good, bad and indifferent logs together, it is therefore very probable that 8,000 pounds to the thousand feet is a safe average.—*Northwestern Lumberman.*

### Best Goods are put in Smallest Parcels.

The old proverb is certainly true in the case of Dr. Pierce's "Pleasant Purgative Pellets," which are little, sugar-wrapped parcels, scarcely larger than mustard seeds, containing as much cathartic power as is done up in the biggest, most repulsive-looking pill. Unlike the big pills, however, they are mild and pleasant in their operation—do not produce griping pains, nor render the bowels costive after using.

### A Log Stealing Story.

The Saginaw *Courier* says:—They say there is considerable log stealing in the vicinity of Claire, and one gentleman interested in lumbering there relates a funny circumstance. He says that two men were set to watch a certain lot of logs and they got out a pack of cards and went to playing 'seven up' on one of the biggest logs, and got so interested that one of the log thieves came along and hitched on to a dog which he had driven in the end of the log and drew it out of the bark, leaving the fellows still playing on the empty shell. The story looks bogus but it has the true 'ring.'

If so-called remedies have failed, Dr. Sage's Catarrh Remdy cures.

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IT IS THE INTENTION to have a Canadian representation at the INTERNATIONAL EXHIBITION at Antwerp, commencing in May, 1885, and also at the COLONIAL and INDIAN EXHIBITION in London in 1886.
The Government will defray the cost of freight in conveying Canadian Exhibits to Antwerp, and from Antwerp to London, and also of returning them to Canada in the event of their not being sold.
All Exhibits for Antwerp should be ready for shipment not later than the first week in March next.
These Exhibitions, it is believed, will afford favourable opportunity for making known the natural capabilities, and manufacturing and industrial progress of the Dominion.
Circulars and forms containing more particular informatiod may be obtained by letter (post free) addressed to the Department of Agriculture, Ottawa.
By order,
JOHN LOWE,
Secy., Dept. of Agric.
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The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., MARCH 16, 1885.*


MESSRS. Garland & Thompson have started a saw mill at Portage la Prairie, Man.

ALL of the Canadian voyageurs, except 70, who went to Egypt to assist the British army in the ascent of the Nile, have returned.

A FACTORY at St. Mary's, Ohio, has furnished 120,000 oars for the Nile expedition against the Mahdi.

GIBBS BROTHERS, of Mayfield, Grand Traverse county, Mich., has about 1,000,000 feet of hardwood banked.

WHILE chopping down a tree in the township of Peel, Ont., Alex. McClance was almost instantly killed by a falling limb.

JOHN RUPRECHT has his new mill at Stephenson, Menominee region, Mich., about ready to start. Its capacity will be 50,000 feet a day.

J. C. MARBLE and C. C. Foster are putting 1,250,000 feet of spruce into Androscoggin river, at Rumford, Me, for the Livermore pulp mill.

MR. PRENEVAU'S new saw mill at Belmont Lake, Peterborough County, will be 30x66 feet and will have a capacity of 20,000 feet a day. It will commence running about May 1st.

THIS season, it is stated, will finish the pine owned by Heald, Murphy & Crepin, on White river, Mich., and their mill property at White Lak will be for sale after next season's sawing.

THE Vanceboro, Me., Wooden Ware Company has received an order for three car loads of clothes pins to go to Australia, and the Augusta Furniture Company is turning out ash sets to go to England.

RECENTLY at Burrard Inlet, British Columbia, the following vessels were loading lumber for distant ports: The bark Persia, for Great Britain; the ship Lorenzo, for Melbourne; the ship Argonaut for Cape of Good Hope; and the bark Mizpah for River Plate, South America.

WET wood is more easily cut than dry, being softer, but the saw requires to be coarse set and very sharp; consequently there is more waste. Frozen wood is much more difficult to saw than dry, and the teeth should be more like those used for hard wood.

AS George Wright, of Foxboro, was hauling logs north of Madoc, Ont., he fell under the sleigh, heavily loaded, and was pinioned for two hours, while his comrade went some distance to procure help. All the time he suffered extreme agony. It was afterward reported that he had died.

FRANK BARNHARDT has begun suit in the Muskegon, Mich., circuit court against Charles H. Hackley for $20,000 damages suffered by son son, John Barnhardt by the upsetting of a lumber pile in 1883. The pile was thrown into the lake from off a dock owned by C. H. Hackley & Co., that broke down, and Barnhardt was caught in the falling lumber, pressed down in the water and drowned.

ROBERT P. PENMAN, whose headquarters are at Evansville, Ind., has contracted for 1,000,000 feet of southern oak for his house in Glasgow, Scotland, James Kennedy & Co. The contracts were made at Nashville, South Pittsburgh and Chattanooga, Tenn. His firm furnishes a large number of oak cross ties for the British railroads. The ties are creosoted before they are laid in the roadbed.

MCBURNEY & Co., of West Gravenhurst, are taking out this winter in the township of Humphrey, 2,000,000 feet by their own camp, and by J. J. Barns, jobber, 250,000 feet. They have some 2,000,000 left over from last year, which will give them, altogether, a stock of 4,000,000 for next summer's cutting. The firm intend operating in the woods as long as the winter lasts, and will probably supplement to above output by half a million.

THE Ottawa, St. Lawrence & Schenectady railroad is a newly incorporated enterprise, with a capital stock of $2,000,000, the object being to build a railroad from Schenectady, N. Y., to the St. Lawrence river, in the county of the same name, there to connect with a road to Ottawa, Ont., the passage accross the great river to be made by means of a bridge. The route would be a direct one between New York and Ottawa, and consequently would at once become an important thoroughfare for Canada lumber. It would also travel the western portions of the Adirondack wilderness, and open up much timber land in that region.

## U. S. FORESTRY.

*To the Editor of the Canada Lumberman.*

DEAR SIR,—The American Forestry Congress has published three numbers of a "Forestry Bulletin," which I presume you have received, I send the last one and some other publications upon the subject,

Since July, 1883, I have resided with my family here, still working for the Department of Agriculture.

The Department has a fourth volume of reports in press, a part of which I prepared.

On Saturday last we organized, at Utica, "A New York State Forestry Association," with Andrew D. White, (President of the Cornell University) as President.

Our Legislature has half a dozen bills before them for forestry protection, but none of them in my opinion will pass. A sub committee is appointed from both Houses to digest and prepare a bill from them all. It will hold a session to-morrow evening, and I am invited to address them.

Important changes in the Department of Agriculture are close at hand, in Washington, and if the present commissioner does not remain the future welfare of forestry in our general Government will depend very much upon the choice of his successor.

I notice that my son, F. H. Hough, furnishes you with patent lists. He may have sent you his card, printed on cross-section of maple. If not, the inclosed may prove a novelty.

They are made here by my second son Romeyn B. Hough, with a machine invented by himself and constructed with his own hands. He is now putting in steam power and will be soon ready to produce them from various kinds of wood, and in any quantities. He sells them at $1.00 per 100 or $5.00 per 1,000, and has done quite a business in a small way, chiefly for ornamental painting as Christmas and fancy cards.

His ultimate object is to issue one or more volumes of wood-sections with descriptive text.

I send an exceedingly thin section of the Magnolia, which shows a wonderful optical property. Hold it to a luminous point in the dark, and notice the brightly colored pathelia. The cause of this easily enough understood: It is but one of several kinds of prismatic effect which these woods display, and which will be fully described and explained in his publication.

Yours truly,

FRANKLIN B. HOUGH,

Agent of Forestry Division, Department of Agriculture.

Lowville, N. Y., Feb. 27th, 1885.

## TORONTO LUMBER YARDS.

*To the Editor of the Canada Lumberman.*

DEAR SIR,—I would not like to deal with all that appears in the LUMBERMAN at the hand of your Toronto correspondent. But one thing calls for special mention. He says the retail yards are overstocked and then undertakes to suggest a remedy. In the first place I have to say there is not a retail yard in this city overstocked—not one; nor is there one suffering any special anxiety. Then as the remedy. Your correspondent suggests that a large retail yard be opened in the outskirts of the city with switches into it from the railroad. Which railroad, may I presume the C. P. R.? I would like to know what he would do with the millions of feet now in railway yards; would he move it out of them to his ideal yard or does he propose to get the C. P. R. to bring in lumber from Ottawa and from the French river, via Owen Sound. If he does, and his dreams ever come to pass in solid fact, he will then learn that its the wholesale men who are overstocked and suffering from anxiety, and that the lumber in their yards will, to a large extent, rot right where it is, viz., in the railway yards of this city. I may with your kind indulgence take in account the matter of price in another issue.

Truly yours,

N. A. P.

Toronto, March 4th, 1885.

## ONTARIO FORESTS.

THE annual forestry report of the Ontario Government from the pen of Mr. R. W. Phipps will be perused with much interest by many of our readers, for it is a mistake to suppose that lumbermen are mere tree destroyers, some of the most zealous advocates of forest preservation being found among their ranks.

A great portion of this valuable address is more especially interesting to the farmers, dealing with the necessity of plantations for protection, and for their climatic influences. For the benefit of this class is all the information in reard to the manner of planting and selection of trees. The statements by manufacturers as to the variety of woods used for different purposes is of interest and may be of service to our readers.

The account of the watershed of Eastern Ontario with its forests is interesting. The conclusions drawn by Mr. Phipps are evidently well warranted; one being that a forest reservation should be established, and the other that greater precautions should be taken by the Government against fires. He shows plainly by his description how dangerous to the forest is the system of encouraging settlers, right among the pines, on land ill fitted for farming. A division of our public lands into forest and agricultural districts would be more economical and better for all concerned.

The concluding portion of the report contains information as to the forest reservation in the Province of Quebec, the Dominion of Canada and the United States. This good example may well be followed by Ontario. Having oppointed Mr. Phipps, who has proved himself to be such an efficient officer, they should now adopt his recommendations.

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Feb. 24, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C.:—

312,839.—Chuck, centering—C. W. Glover, Boston, Mass.

312,838.—Chuck, lathe—C. W. Glover, Boston, Mass.

312,615.—Lathe—J. W. Cullen & J. W. See, Hamilton, Ohio.

312,669.—Mortising machine—F. W. Stevens, Lowell, Mass.

312,870.—Saw fastenings, device for adjusting—A. J. Linton and R. D. Stewart, Saginaw, Mich.

312,735.—Saw gummer—H. Van Nostrand, Gloversville, N. Y.

312,735.—Sawing machine, hand—J. V. Rowlett, Richmond, Ind.

312,849.—Wood ornamentation—L. S. Hayes, Cortland, N. Y.

PATENTS ISSUED MARCH 3.

313,447.—Lathe—S. W. Putnam, Fitchburg, Mass.

313,294.—Log crib—C. C. Barker and T. Craney, Bay City, Mich.

313,293.—Log loader, floating—C. C. Barker & T. Craney, Bay City, Mich.

313,195.—Plane for picture moldings—E. L. Gaylord, Bridgeport, Conn.

313,395.—Saw mill dog—T. S. Wilkin, Milwaukee, Wis.

313,396.—Saw mill set-works—T. S. Wilkin, Milwaukee, Wis.

313,427.—Saw tooth—N. Johnson, Jasper, N. J.

## AUSTRALIA.

Messrs. Lord & Hughes' monthly circular, dated Melbourne, Jan. 14th, 1885, says:—

Since the date of our last we have had a succession of Christmas and New Year's holidays, which have prevented sales, in fact nearly all business has been suspended. Sales that have taken place show a decline in nearly every line; but now that business has again fairly commenced we look for a more active demand.

The arrivals of most descriptions have been heavy, especially from the Baltic ports.

Trade from the yards continues active, and with a slight cessation of arrivals we may look for a small advance.

RED DEALS.—Imports: 1,354 standard, 5,081 pieces from the Baltic. The arrivals have been—Border Chief and Felix, from Gefle, Savenas, from Skelleftea, and Svea, from Sundswall. The cargo, ex Fritzoe, was offered at auction on 9th instant, all the K H B and H A B being quitted at prices quoted in our list of sales, C x x B brand being unsold, with the exception of small line 9x4. Other sales have been of shipments ex Sobraon, Cambrian Duchess, and Nanna, the latter two vessels bringing cut deals; and at yesterday's sale, when the balance ex Glencairn, were offered, only a portion being sold.

SPRUCE DEALS.—Imports: 59,061 pieces from Canada, and 1,101 pieces white deals, from the Baltic. The arrivals have been—Prior Hill and Prince Frederick, from Saguenay, and G. P. Harbitz and Schwanden, from the Baltic. The cargo ex Prior Hill, was offered on 6th inst., all the spruce deals and boards being cleared off.

OREGON TIMBER.—Imports: 1,246,428 feet super. The arrivals have been—Sir Jamsetjee Family and Katie Flickinger. Both of these cargoes, as well as those ex William Renton and W. H. McNeil, being cleared off at auction, prices naturally showing a fall on last month's rates.

LUMBER.—Imports: Clear pine, 732,079 feet super: white pine shelving, 540,468 feet super; T. and G. ceiling, 155,606 feet super. The arrivals have been Abner Coburn, and Eastern Monarch, from New York; S. F. Hersey and Jupiter, from Boston, with clear pine, shelving, and ceiling; Prior Hill and Prince Frederick, from Saguenay, with Canadian clear and carpenter's clear pine. Sales have been made ex

Messrs R. Tower, S. F. Hersey, Prior Hill, and Abner Coburn.

REDWOOD.—Imports: 360,824 feet super. The only arrivals has been Estella, from Humbolt Bay. The demand for consumption of this timber is but small. Sales by auction have been made of small lines, 3, 4, 5 and 6 inch, ex Adelaide steamers, at £9 10s.

FLOORING AND WEATHERBOARDS.—Imports: 5,570,518 feet lineal from the Baltic and Great Britain; 907,670 feet lineal from Canada. The arrivals have been, Waaland, Botvid, and Schwanden, from Frederickstadt; Nanna and G. P. Harbitz, from Christiania; Selkirkshire Gareloch, from London; Prior Hill and Prince Frederick, from Saguenay. The only public sales have been ex Nanna and Regina, of Baltic Red and white flooring, lining and weatherboards; and of spruce flooring, ex Prior Hill, at following prices;—Red, 6x1½, at 9s. 6d.; 6x⅞, at 7s. 6d. and 7s. 3d.; 6x⅝, at 6s. 3d.; 6x½, at 4s. 7d. and 4s. 6d. 4-out weatherboards, at 5s. 6d. and 5s. 3d. White, 6x1½, at 8s. 3d. and 8s. 6s.; 6x⅞, at 7s. 6d. and 7s. 3d.; 6x⅝, at 6s. and 5s. 9d.; 6x½, at 4s. 9d. 4-out weatherboards, 5s. 6d.; spruce, 6x⅞, at 6s. 3d. Since writing the foregoing the Zenobia has arrived, but cargo is not included in these imports.

KAURI PINE.—Imports: 508,024 feet super. The arrivals have been—Defiance, from Wangaroa, and Killarney and Grassmere, the latter not being included in these quantities, from Kaipara. All the auction sales during the past month are comprised in the boards and flitches, ex Clansman, a small portion of logs, and all the flitches, ex Wenona and Defiance.

CEDAR.—Imports: 14,300 feet. The arrivals have been Rodondo and Nemesis, from Sydney. Sales are not easily made except at very low rates.

DOORS.—Imports: Nil. There have been no sales publicly since our last.

LATHS AND PICKETS.—Imports: Laths, 9,494 bundles; pickets, 4,901 bundles. A fair amount of business has been done at auction, prices being slightly lower.

SLATES.—Imports: 301,437 pieces. In consequence of continued heavy arrivals prices have declined.

PLASTER.—Imports: 1,250 barrels. The market remains about the same as on date of our last advice. There have been no public sales to report.

CEMENT.—Imports: 5,860 barrels. The only sale by auction has been line of Adamantine cement, at 12s.

GALVANIZED IRON.—Imports: 759 tons. Nothing of interest has transpired since our last, and sales by auction are difficult to effect. Prices for best brands are quoted at £18 to £19.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3; T. and G. flooring at per 100 feet running; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 feet super; Kauri pine and cedar logs at per 100 feet super; laths, pickets, and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

### A Serious Explosion.

DUNNVILLE, March 10. — An explosion occurred about 11 o'clock this morning in the second story of the building occupied by Robert Hall as a liquor store. The explosion was the result of placing a powder flask in the oven of an unused stove, for safe keeping, where it was forgotten. This morning it appears a servant lighted a fire, and commenced to work about the room. It was not long before the stove was blown to atoms. The front windows were blown out, and very considerable damage to the ceiling and walls of the room. The furniture was much damaged, and the servant received a rather severe cut on one of the limbs which was struck by a fragment of the stove.

"Frozen Facts" is a purely American expression, and one, too, of recent origin. It has the merit of attracting attention, and also seems to bear conviction of truthfulness on its face. We make room in our issue of to-day, for a fact of this character. A correspondent, Henry Whiting, Esq., of Boston, Mass., says: "Dr. R. V. Pierce's 'Golden Medical Discovery' has cured my son of a fever-sore of two years' standing. Please accept our gratitude." We believe it to be a fact, whether "frozen" or otherwise, that America needs more men like Mr. Whiting; men who act, men who investigate truths, and seize opportunities.

### BELMONT.

NEW SAW MILL.—The new steam saw mill of Messrs. Prenevau & Co., which is being erected on the south shore of Belmont Lake, about two and a half miles from Havelock, will be ready to commence work on about the first of May. Its size is 30 x 66, and its capacity will be 20,000 feet a day. It will turn out lumber, shingles, bill stuff, &c.

### MADOC.

SHANTYMEN VS. ITALIANS.—On Tuesday a row occurred between a party of Italians and some shantymen returning from the woods, at the village of Bannockburn, that may yet result fatally for some of those engaged. It appears that the shantymen met some of the Italians a short distance north of that place, and had a row. The Italians followed the others back to the hotel where they were reinforced by several more of their gang, making in all seven. They were evidently bound to have a fight, as one of them immediately drew a knife and made an attack on the shantyman, whom he appears to have had the first row with. The latter warded off the murderous blow but received a bad glancing cut on the head, and the fight then became general, chairs, poker, sticks of wood, &c., being freely used. The woodmen numbered six, but one of their party thought discretion the better part of valor and quickly got himself out of the back door, leaving his five companions to battle with the treacherous sons of sunny Italy. The fight was a desperate one while it lasted, but the Italians were finally defeated, two of their number being so badly used up that they have since been confined to their beds, one of them especially being so badly injured that his life is despaired of. Fortunately he was the fellow who first drew the knife. None of the shantymen were badly injured, and they proceeded on their way to Trenton.—*Review.*

### THE CLIMATE OF BRITISH COLUMBIA.

OTTAWA, March 9.—Two weeks ago Mr. A. W. Ross left Victoria, Vancouver island, to attend Parliament. In conversation with him today he tells me that when he left the grass was high and green, and wild flowers were in blossom everywhere. He counted five varieties of flowers in full bloom in one garden. The farmers were ploughing. Gooseberry bushes were out in leaf. The buds of pear trees were just bursting. Speaking with an Englishman, Mr. Ross says he told him he had no idea that there was such a climate in any part of Canada. It was like the south of England. Indeed he preferred it, as the climate was not so raw as in England in February. Ivy grows on all walls, and trees and fences, and the holly attains great perfection. Mr. Ross says Vancouver is England and Canada combined. The ivy clinging to the maple tree and the holly growing at the roots. The last winter was one of the severest experienced for twenty-three years, yet the lowest temperature in any night of the winter was ten above zero. The snow lasted for about two weeks. Mr. Ross considers the island and the mainland near the coast the best region for apples, pears, plums, and cherries he had ever seen. He saw plums weighing six and eight ounces last autumn. In the interior among the valleys grapes, peaches, and watermelons attain perfection in the open air. The hardier varieties of fruit are better than those grown in California.—*Mail Cor.*

### A BURSTING GRINDSTONE.

ST. CATHARINES, March 7.—About 8.30 this morning a most painful accident occurred at the Welland Vale Works. Mr. A. Corker, one of the grinders, was tuning up a grindstone that was set a few days ago, assisted by Mr. T. Moses. The stone was running at an unusual speed for one under the process of preparation, when it burst, part going down through a double floor into the race and the other half flying back, breaking the pulley in two and carrying Moses with it and hurling him against a bundle of scythes. The pulley, with part of the stone, pinned him to the floor, the poor man received innumerable gashes over his body from the scythes, one of his arms being so badly lacerated that it will probably have to be amputated, and one of his legs is so seriously cut about the knee that it is thought to be worse than a break. He is about 30 or 35 years of age, and has a wife and family. Corker only got a scalp wound and will be all right in a few days.


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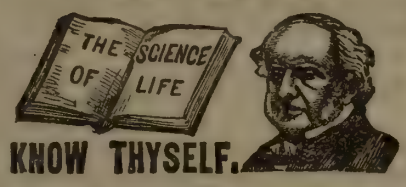


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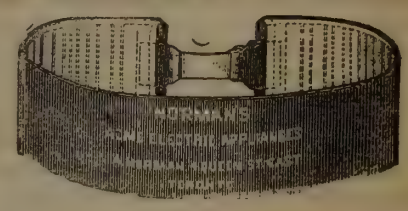


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OTTAWA, September 3rd, 1883.

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Yours truly, R. E. HALIBURTON.

PETERBOROUGH, October 15, 1883

A. NORMAN.—Dear Sir,—Soon after I commenced to use your Electric Appliances, they opened my bowels, cured my cough and cold, relieved my head and considerably relieved my catarrh in consequence. The discharge from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good.

Yours truly, J. GREEN.

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### FALL OF A GIANT PINE.

The other afternoon the writer and a friend rode over to the Pratt lot, Westbrook, where Melville Hamblett, of Nason's Corner, is logging with a large crew of men. Some of the men were chopping down trees, others sawing the fallen trees into logs, others were dragging with oxen the logs to the side of the logging road, where they could be loaded on to sleds to be hauled to the city. The visitors told Mr. Hamblett that they wanted to see a big tree cut down. "All right," says Mel, "you shall," and calling two of his best choppers directed them to tackle a gigantic pine, that ran up into the sky more than 100 feet and measured four feet through at the butt.

"Good gracious, Mel?" cried Desire, "we can't stay long enough for them to cut that tree down—'twill take all the afternoon! Let them take a smaller one."

Mel smiled out of a corner of his eye and said, "Don't you worry. You'll have plenty of time to see them fell that pine and another like in, and then get back to the city in good season."

In the meantime the choppers—two brothers, named Hugh Ettinger and Archie Ettinger—young, smart-looking men, with straight, athletic figures, had trampled down the snow around butt of the big tree and cut down several little trees that would otherwise have interfered with the swing of their axes. Then they sailed into the giant tree with might and main. Big chips and little chips flew with gaping carfs in rapid succession. In just twenty-five minutes the choppers stepped away from the tree with the warning cry, "Watch out!" This cry means that the tree is on the point of falling and warns all to keep "out from under." For a second or two after the call the enormous tree stood tottering as if in doubt which way to fall, and then down it came with a crash that shook the ground and woke the echoes on every hand. In its fall it swept past another pine almost as big as itself and took from it every one of the lower branches almost as clean as if chopped with an axe. It was a sight richly worth riding over there to see. Hugh and Archie did not appear to be winded in the least by their sharp labor, and, mounting the trunk of the fallen pine, began the task of "limbing;" and thus engaged the visitors left them, bidding them and the genial Mel "a good day and a clear track" for the remainder of the logging season.—*Portland Argus.*

### SUBTERRANEAN WOODS.

Clarence Deming, in his "By-ways of Nature and Life," says of the swampy region of southern New Jersey:

"The huge trees which lie under the swamp to unknown depths are of the white cedar variety, an evergreen, known scientifically as the Cypresses Thyoides. They grew years ago in the fresh water, which is necessary for their sustenance, and when in time, either by a subsidence of the land or a rise of the seas, the salt water reached them they died in numbers. But many of them ere they died fell over as living trees, and were covered slowly by the deposits of muck and peat which fill the swamp. These trees that fell over by the roots, and known as 'windfalls,' to distinguish them from the 'breakdowns,' are the ones most sought for commercial uses, and there are found and worked as follows: The log-digger enters the swamp with a sharpened iron rod. He probes in the soft soil until he strikes a tree, probably two or three feet below the surface. In a few minutes he finds the length of the trunk, how much still remains firm wood, and at what place the first knots, which will stop the straight 'split' necessary for shingles, begin. Still using his prod, like the divining rod of a magician, he manages to secure a chip, and by the smell knows whether the tree is a windfall or a breakdown. Then he inserts in the mud a saw like that used by ice-cutters, and then saws through the roots and muck until the log is reached. The top and roots are thus sawed off, a ditch dug over the tree, the trunk loosened, and soon the great stick, sometimes five or six feet long, is brought to the surface and is split by hand and worked into shingles, as well as into staves used for pails and tubs. The wood has a coarse grain which splits as straight as an arrow. The shingles made from it last sixty or seventy years, are are eagerly sought by builders in southern New Jersey, and command in the market a much higher price than ordinary shingles made of pine or chestnut, which last for roofing usually not more than twenty or twenty-five years. In color, the wood of the white cedar is a delicate pink, and it has a strong flavor, resembling that of the red cedar used in making lead pencils. The trees, once fairly buried in the swamp, never become waterlogged, as is shown by their floating in the ditches as soon as they are pried up, and, what is more singular, as soon as they rise they turn invariably with their under side uppermost. These two facts are mysteries which science has thus far left so. The men who dig the logs up and split them earn their money. The work is hard, requiring, besides lusty manual labor, skill and experience; the swamps are soft and treacherous, no machinery can be used, and long stretches with mud and water must be covered with boughs or bark before the shingles can reach the village and civilization."

### THE EFFICIENCY OF A BOILER.

To estimate the efficiency of a boiler the engine must not be left out of consideration, as the quantity of water required per horse power has been shown to be variable, and depending on the kind and make of the same. The amount of water converted into steam from 212 deg., to 220 deg., Fahrenheit is the most reliable means of determing the efficiency of a boiler; then all boilers cannot be compared on the same basis. If the standard for a horse power fixed by Emery is adopted, then all boilers can be compared on this basis, which will give the correct result for engines conforming with the standard, but which results must be altered to conform with engines requiring different standards. Steam heat and power still hold their supremacy as mechanical civilizing agents, and their use is increasing every moment. The expense for fuel represents the largest current expenditure in the production of heat and power, and to save materially in the largest is the aim of every steam user and manufacturer. As a rule, those who supply the money to meet the expenses of the steam plant are men not conversant with the principles and details of steam engineering. They know not the cardinal facts as the theoretical heat energy in the fuel, the limits of efficiency in the steam engine, and rarely have a correct idea of the conservation of energy and its equivalent ratios. They do know, however, that their plant cost them a large amount of money for fuel, and they are, therefore, ready at any time to give ear to those who propose to reduce the figure.—*American Engineer.*

### BOXWOOD GETTING SCARCE.

"In less than one year the price of boxwood has trebled," said a hardwood dealer. "The roller skating mania has completely exhausted the market of a certain size of boxwood. Less than 18 months ago I could sell a ton of three-inch boxwood for $38, and it would be first grade wood in every respect, and admirably suited for turning small work. The demand then was steady, and the principal consumers of the wood were rule makers, tool manufacturers and turners, who supplied the market with boys' tops, pool pins and toys of various kinds. The sudden and remarkable growth of the roller skating pastime has created a constantly increasing demand for a size of wood, and now it is impossible to purchase a ton of suitable wood for skate wheels for $120. Rollers are made in several sizes, ranging from 1⅝ to 2⅛ inches in diameter, and only the natural growth of boxwood approximating these sizes is fit for use. Large wood is too costly, and is less firm in resisting the tremendous strain of skater's weight upon an axle only 7-32 of an inch in diameter. The boxwood grows in Persia and Turkey, and heretofore the crop has always has always been handled in England. It is a wood of very slow growth, and in its native country stringent timber laws restrict the depletion of the growing trees. At the present rate of consumption, the world will be practically exhausted of its boxwood in less than 12 months unless some equally cheap and durable substitute is found to take its place."

"Has nothing been tried which gives promise of superseding boxwood?" asked the reporter.

"Yes, rubber, culluloid, rawhide, vulcanized fibres and compressed paper have been tried in making rollers, but for one reason or another they have proved unsatisfactory. Some have proved too soft, while others, like the pure celluloid wheels, have been found too expensive for general sale, and the necessary metal bushings have proved objectionable, because the grit and dust from the floor and shoes of the skaters, wearing between two metal surfaces, has rapidly cut away the axles of the skates, rollers with anti-friction bushings, consisting of a number of small steel plugs freely revolving around the axles, have been tried with some composition wheels with success, but they are necessarily very expensive, and on this account cannot come into general use."

"Will no other kind of wood than boxwood answer?"

"Only for very cheap skates. Dogwood, apple, pepperidge, laurel and lignum vitæ have been tried by almost every roller maker, and all have been rejected. The lignum vitæ alone is hard enough, but it will not stand the strain of the small axle. Metal wheels with a rubber surface are made, but nothing has yet been found which in all respects is as good for the purpose as boxwood."—*Lumberman's Gazette.*

### ART APPRECIATION.

It seems not unnatural that a Boston correspondent should make a Chicago man the hero of this incident in what is called real life:

A prominent merchant of one of our Western cities, who counts his dollars with seven figures, but who, in the ardent pursuit of wealth, has neglected such frivolities as literature and art, was recently visiting Boston with his family, and seeing the sights of "the Hub." In the course of his wanderings he entered the museum of Fine Arts, and after gazing superciliously around at the contents thereof, his attention finally rested upon some fine paintings by Gustus Dore, which were at the time the pride of the city These seemed to interest him, for, turning to his guide, he said, "G. Dore? G. Dore? are these by G. Dore?"

On receiving an affirmative response, he continued, "It seems to me that he has improved greately of late, hasn't he?"

The guide, remembering that the artist had been dead some time, struggled a-while with the desire to be truthful, but delighted that the great man had at last found something to interest him, finally doubtfully answered that perhaps he had.

Then the Westerner called his son to him; "John, see these pictures by G. Dore? G. Dore, *Why, he painted our house in Chicago!*"—*Harper's Magazine.*

### A Pretty Old Tree.

A Pottersville correspondent writes: "Joseph and Wm. Archer chopped down a hemlock tree the other day measuring 3½ feet in diameter, and in the centre of the tree there was an old chip. There was nearly a foot and a half of sound timber grown over the chip, and, by the number of growths from the old scar, it must have been 200 years since the tree was chopped into. Messrs. Archer have saved the old chip and a block of the sound wood, and any parties doubting the above statement are welcome to come to come and see for themselves."—*Hamilton Times.*

### Fire At Belleville.

BELLEVILLE, March. 4.— At about midnight a fire broke out in the lower part of the butcher market building the upper story of which is used as an armory by No. I company of the 49th battalion. The fire was confined to the lower floor, where the damage done was estimated at $1,500; insured in the Queen's for $300. The fire was incendiary.


### Woman's Face.

"What furniture can give such finish to a room as a tender woman's face," asks George Elliott. Not any, we are happy to answer, provided the glow of health tempers the tender expression. The pale, anxious, bloodless face of the consumptive, or the evident sufferings of the dyspeptic, induce feelings of sorrow and grief on our part and compell us to tell them of Dr. Pierce's "Golden Medical Discovery," the sovereign remedy for consumption and other diseases of the respiratory system as well as dyspepsia and other digestive troubles Sold everywhere.


### A PIECE OF MECHANISM.

A Berlin school contains at present a scientific novelty of particular attention, namely a monster movable globe, made of copper, the work of a blind clock-maker, on the construction of which the energetic man spent seventeen years of his life. The globe, which represents the earth, turns on its own axis by means of mechanism. An artifical moon moves round the globe in twenty-eight days and six hours, while a movable metal band, on which the hours are marked, indicates the mean time in the different parts of the earth. Round the upper part of the immense globe, which weighs a ton and a half and whose surface measures 126 feet in diameter, spins a railroad car (capable of holding six persons,) which serves to give a better view of the regions of the North Pole. The painting of the globe is done in oil, and neccessitated the employment of two men during one entire year. The sun is represented by an apparition lighted by an immense Drummond calcium light, which enables the spectator to catch the origin and change of the different portions of the day and early dawn, the twilight, eclipses of the sun and moon, etc.

### PITIFUL SUICIDE.

Mrs. Gertie Wheelar, formerly of Toronto, and wife of a furrier in Winnipeg, took poison on Monday night and died at St. Vincent's Hospital on Tuesday. She lived on the topmost floor of a Bleeker-street tenement. On Monday she spoke constantly of her trouble, and said "I will do it; I will kill myself," over and over again; but there was nothing in her actions to indicate that she really intended to commit the deed. Shortly before midnight loud groaning was heard in her room, and she was asked what she had done. She replied. "I have taken poison, and I want to die." A box containing "rough on rats" was found under the sofa. She said that she had swallowed two spoonsful. She had frequently said that she was unhappy, and threatened to commit suicide. Last Saturday she received a letter from her husband imploring her to return home. She told the landlady that she would not go, and answered her husband's letter and wrote to her father in East Hanover, Germany. Mrs. Wheeler was a fine-looking woman, about 30 years of age. Mr. Wheeler was notified of his wife's death.—*Globe.*

### A COWARDLY MURDER.

CANAJOHARIE, March. 2.—There is much excitement in this country over the brutal murder of Prof. C. S. Smith, principal of the Fairfield Seminary, who was shot and killed by Dr. Richter, at Middlefield, on Saturday afternoon. Richter had seperated from his wife, and refused to give her any property. She obtained a writ of replevin, and went to Richter's house, accompanied by Prof. Smith, who was the husband of her niece. While Smith was pointing out to the constable the goods claimed by Mrs. Richter the doctor shot him in the back. Smith was only able to reach the street and tell passengers how he had been shot, when he expired. The murderer was lodged in Herkimer county gaol. The people have threatened to lynch him. Smith was very popular.


### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y13

# The Ontario Canoe Co., Limited

PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

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President and Managing Director

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LEATHER Belting.

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SILVER MEDAL at St. John, N.B., 1883.

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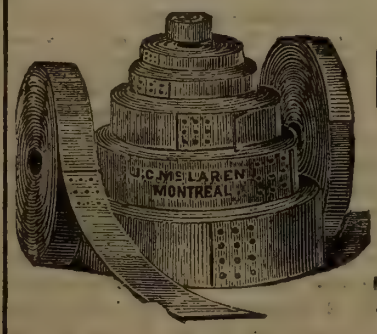


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# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

MARCH 9.—Our retail men have had their patience and purses well tried by the long and severe winter through which scarcely any business has been transacted, and they will all hail with delight the signs of renewed activity now near at hand. Little will, however, be done this month beyond preparations for active work next month. The number of buildings to be erected this season bids fair to out do any previous year, and will be of a better class than formerly built. Land is getting so valuable that it will not pay to put up the cheap class of tenements heretofore erected. Loan companies also are shy of advancing money to build houses that begin to fall to pieces over the heads of the first tenant; in fact better work will be demanded all around. The drainage and plumbing have hitherto been of a most disgraceful character in many of the cheaply put up houses, and this will have to be altered for sanitary reasons, and to avoid the constant waste of water during severe frosts.

Considering lumber is now coming in by rail and brisk competition may be anticipated in the carrying trade of that kind of freight, between the G. T. R. and C. P. R., and in the scrimmage that ensues the lumbermen will get the benefit. Figures for bill stuff have a slight tendency upward. Short joisting and scantling which sold at the mills a month ago at $8.50 to $9.00 are now worth $9.00 to $9.50 per M. Of course the manner of inspection rules the price to a greater or lesser extent. Quite a number of the manufacturers try to palm off about 50% mill culls, and so are prepared to accept 50 per cent less per M by so doing. There should, however, be a uniform class of inspection; there would then be one uniform price or nearly so. Most of the mill men admit there is a class of lumber called mill culls, but when asked to define what constitutes a mill cull the education of many of them in that line will be found to be lamentably deficient. The writer heard of one who when asked what a mill cull was said: "Well, a mill cull is a mill cull and that is all there is about it." The true inwardness of the case is, as the quality and quantity of our timber decreases, year after year, so does the ideas of our mill men go up as to grading. I do not say this is universally the case, but it is so in many instances. Shingles and lath are not so plentiful as they were in the fall and will command $2.10 to $2.15 at the mill for the former, and $1.50 to $1.55 for the latter. When the mills get into operation, however, I presume prices will come down 10 to 15 cents on both.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 30 00 |
| 1½ " " rough | 16 00 |
| 1½ " " dressed | 25 00 |
| 1½ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ₩ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

MARCH 9.—There is as yet no appreciable change in this market, as the spring trade cannot be said to have opened and will not do so till about the first of April, but that trade is likely to be good on account of the extensive building trade which is being prepared for. The Ottawa markets are hardly so stiff as they were earlier in the season, and merchants there do not seem so confident of high prices as they were when snow was scarce and the roads at the shanties unfavorable for lumbering. Now the roads are good and there is every probability of as much lumber being got out as usual. In our market the stock of low grade lumber is rather large, while the better grades are not to say too small, but fully equal to the prospective demand. Prices here are unchanged, and we continue to quote ex yard as under:

| | |
|---|---|
| Pine, 1st quality, ₩ M | $35 00@40 00 |
| P ne, 2nd " ₩ M | 22 00@24 00 |
| Pine, shipping culls, ₩ M | 14 00@16 00 |
| Pine, 4th quality deals, ₩ M | 10 00@12 00 |
| Pine, mill culls, ₩ M | 7 00@ 9 00 |
| Spruce, ₩ M | 10 00@13 00 |
| Hemlock, ₩ M | 9 00@10 00 |
| Ash, run of log culls out, ₩ M | 20 00@25 00 |
| Bass, " " ₩ M | 12 00@18 00 |
| Oak, ₩ M | 40 00@50 00 |
| Walnut ₩ M | 60 00 100 00 |
| Cherry, ₩ M | 60 00@80 00 |
| Butternut, ₩ M | 25 00@35 00 |
| Birch, ₩ M | 20 00@25 00 |
| Hard Maple, ₩ M | 25 00@35 00 |
| Lath, ₩ M | 1 75@ 2 00 |
| Shingles, 1st, ₩ M | 3 00@ 0 00 |
| Shingles, 2nd, ₩ M | 2 50@ 0 00 |

CORDWOOD.

Pretty free supplies are being received by the railways, while the retail demand for the past week has been lighter than usual. The imports are expected to continue to be on a liberal scale, as railways now are consuming coal, having substituted it for wood. We still quote at the railway stations ex cartage:

| | |
|---|---|
| Long Maple | $ 6 00 |
| Long Birch | 5 50 |
| Long Beech | 5 00 |
| Tamarack | 4 50 |

## BOSTON.

The *Journal of Commerce* of March 7th says: Business has not opened yet for spring, and the prospect has not developed itself. Eastern lumber is naturally quiet, with the arrival of an occasional cargo only. Orders for spruce have come in quite fairly. Western pine is dull, especially the coarser grades. Prices on selects and fine commerce are firm. Yellow pine is very dull for timber, with flooring and step plank in moderate request. In hardwoods there is a fair demand for walnut, cherry and whitewood.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## CHICAGO.

AT THE YARDS.

The *Northwestern Lumberman* of March 7th says:—The continuance of warm weather has caused a marked increase in the movement of lumber. Local consumption has begun in earnest, so that the call on yard stocks from the contractors and carpenters, has become an important feature of trade. Yards that cultivate such business are busy loading wagons for delivery at building sites, some of them being actually crowded with orders. The urgency is, no doubt, greater on account of the fact that the frost is rapidly coming out of the roadways, and soon the mud will prevent hauling.

There is now sufficient movement of lumber to make some test of prices, but, as yet, there appears to be a degree of uncertainty. A careful inquiry fails to elicit the acknowledgement that cutting is done to the extent of more than 50 cents to a $1 a thousand on common lumber. On the most desirable dimension the concession is generally about 50 cents a thousand, and on sizes that are druggy, $1 is knocked off. All 12-foot lumber is wanted and comparatively firm of price. Twelve inch common boards are good property, and box boards are scarce and firm. No. 2 fencing is about as weak as any kind of lumber, and 12, 14, 18 and 20-foot fencing of first quality never sells up to the list price; it is quoted at $13 a thousand, while nobody pretends to ask but $12.50 for it. Selects and thick uppers sell below the printed list issued by the trade, but it is thought that the tone of prices on these classes of lumber will "firm up," as the season progresses. Inch finishing lumber is fairly firm, with little concession.

There is some disappointment about the selling prices of shingles. Some houses quote standards as low as $2.10 to $2.15, but the majority say that $2.15 to $2.20 is as low as they can be bought in quantities. It is thought unnecessary to change our quotations on shingles to conform to some sales between yards that may be lower than quotations. For the same reason the general list in the *Lumberman* is permitted to stand until a further revival of trade has developed a more positive range. It is believed that the list now appearing is not widely divergent from prices made to customers on mail orders. It is yet to be seen what the anxious drummer will do when he grapples with the like kidney from the middle river and the North.

In regard to prices at this season it must be taken into consideration that some stocks are being closed out entirely, and that as a consequence, low prices are sometimes made to the trade. Such special terms must not be taken as a test of values in actual distribution, though it must be confessed that they tend to weakness all along the line. It is evident, however, that proprietors of yards that are closing out are not inclined to slaughter their property to that degree that some expected. They think that lumber in pile at this season should bring a price not greatly below that atked by the general trade.

STOCK ON HAND FEB. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 589,442,064 | 583,228,906 |
| Shingles | 333,889,025 | 437,745,250 |
| Lath | 57,824,292 | 62,566,999 |
| Pickets | 2,927,264 | 1,516,999 |
| Cedar posts | 478,484 | 453,436 |

FREIGHT RATES TO EASTERN POINTS.

In effect from Nov. 13th, 1884, to March 1st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

| | |
|---|---|
| Chicago to— | |
| New York and common points, per 100 pounds | 32c. |
| Albany | 29c. |
| Boston and common points | 37c. |
| Philadelphia | 30c. |
| Baltimore | 29c. |
| Washington | 29c. |
| Buffalo and Pittsburgh | 18½c. |
| Erie, Pa | 18½c. |
| Dunkirk, N. Y | 18½c. |
| Troy | 29c. |
| Shenectady | 29c. |
| Wheeling | 18½c. |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₩ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ₩ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall stripe, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall stripe, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₩ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ¾-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ¾-inch | 30 00@32 00 |
| Ash, good, ₩ M | 40 00@43 00 |
| Ash, second quality, ₩ M | 25 00@30 00 |
| Cherry, good, ₩ M | 80 00@85 00 |
| Cherry, common, ₩ M | 25 00@30 00 |
| Oak, good, ₩ M | 40 00@43 00 |
| Oak, second quality, ₩ M | 20 00@25 00 |
| Basswood, ₩ M | 25 00@30 00 |
| Hickory, ₩ M | 40 00@40 00 |
| Maple, Canada, ₩ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₩ M | 38 00@40 00 |
| Shingles, shaved, pine, ₩ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 2 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ₩ M | 0 00@ 2 00 |
| Lath, spruce, " | 0 00@ 2 25 |

## OSWEGO, N.Y.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 22 00@25 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| No. 1 run lots | 16 00@22 00 |
| Siding, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| " Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| " No 2 | 1 75@ 2 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@45 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LIVERPOOL.

The *Timber Trades Journal* of Feb. 28th says:—Had it not been for the public sales of timber and mahogany, there would have been but little to interest your readers, for the business of the past week has been upon a very limited scale, if we can judge from the small amount of timber, deals, etc., lying at the various wharves for transhipment to the country districts. The reports from the manufacturing districts continue to be of a doleful character; orders continue to be small in extent and prices cut down to the lowest margins.

On Friday the 20th inst., Messrs. Alfred Dobell & Co., offered a portion of the cargo of hewn pitch pine per Sirian Star, from Apalachicola, consisting of about 209 logs and 243 deals. The company present was composed chiefly of the local trade. Prices ranged from 14½d. to 19⅝d., averaging about 16½d. per foot for the timber, whilst the deals sold at 11½d. per foot.

Messrs. Duncan, Ewing & Co., immediately afterwards offered the entire cargo of hewn pitch pine timber and deals ex Choice, from Apalachicola, to the same company, and cleared it out at prices ranging from 13⅜d. to 19d. per foot, averaging about 15½d. per foot for the logs, and 10½d. to 11½d. for the planks. Several lots of teak planks were sold at from £14 10s. to £14 15s. per load, and it is understood that the lots withdrawn were subsequently sold by private treaty.

On Wednesday, the 25th inst., Messrs. Farnworth & Jardine offered the cargo of sawn pitch pine timber now landing, ex Voeni, from Pensacola, and, with the exception of a few lots, it was sold at from 13½d. to 17d. per foot, averaging about 14 13-16d.

It having been suggested to the Mayor of this city (Alderman D. Radcliffe) that an exhibition of appliances used in "navigation, travelling, and commerce" might not only be of immediate benefit to this port, but might tend to its permanent advantage, he issued a private circular to the most prominent citizens, asking their attendance at a private meeting at the Town Aall to consider the subject. In response to this invitation a large and influential meeting was held in the City Hall on Monday, at which all the chief interests of the port were represented, and after an able address by his Worship, which was very cordially received, the following resolution proposed by Mr. Christopher Busheli, and seconded by Colonel McCorquodale, was passed unanimously.

"That in the opinion of this meeting the proposal to hold an exhibition in Liverpool next year, of navigation, travelling, and commerce, with a complete collection of Lancashire products, is deserving of hearty approval and support."

According to the private circular, a prominent feature in the proposed exhibition would be a complete collection of imports; hence it will be of considerable interest to those engaged in the timber trade of this port; and it is to be hoped, when the scheme is more fully developed, we shall see a greater amount of interest shown in the project, by all wood producing countries than was the case in the recent Forestry Exhibition held in Edinburgh, where some of the principal sources of our timber supplies, notably our North American Colonies, were lamentably weak.

## LONDON.

The *Timber Trades Journal* of Feb. 28th says:—Things at Messrs. Churchill & Sim's sale on Wednesday went somewhat better, and though this apparent activity was limited to the small parcels likely to go cheap, it was still a welcome change to the monotonous character the public sales have for some time past assumed.

There were plenty of buyers present who

were anxious to compete for the small parcels, and for these values took a somewhat elevated range. 3rd Dram white battens, for instance, that *pro rata* with other descriptions would have been no great catch at £4, went 20s. higher.

Comparing one week's prices with another, the variation is unimportant. Deals may show a 5s. or 10s. improvement to day, and the next occasion a corresponding drop, and so on; though, on the whole, the stationary attitude of values from the commencement of the year up to the present time is somewhat remarkable, and can be attributed solely to the uncertainty surrounding things generally. There is a lot of private business doing, but nothing like the trade that ought to be going on at the opening of a new season. The mildness of the weather has been all in favor of the consumption, yet we hear of stocks hanging on hand almost everywhere. The dock deliveries themselves are a sufficient indication of the slackness of trade. Week by week they go on without even keeping pace with last year's demand, and those recorded in the present number of the *Journal* seem to show that no beneficial effect has been felt in the market yet from the large Government orders for deals and sleepers.

The latter article would have little or no effect on the dock deliveries, as it is a description of timber that does not appear in the stocks at Rotherhithe. Still the mere fact of a large demand being made for timber of any kind, coming from an unexpected quarter, might be supposed to have some effect on other descriptions, but the market is dull apparently to all influences; at any rate, we do not see any symptoms of sensitiveness from the present low values which are being realized at public auction.

Things at the Baltic on Thursday went a bit livelier, and though taken throughout no marked advance could be pronounced, several of the parcels submitted fetched better prices than they did a short while back. This was, however, mostly confined to the small odd lots, for which bidding was brisk and buyers plentiful. This, perhaps, foreshadows an improvement, but it has not assumed any tangible shape at present, and that is about all we can say. To convey some idea of the appreciation these odd parcels were held in we may mention a little lot of 3rd white spruce ends, 7 and 8 inch widths, for which £5 10s. was readily forthcoming, and for some 50 pieces of damaged 4th pine, the absurd price of £7 10s. was paid. For the 2nd Quebec spruce, ex Uno, there was some spirited bidding, but prices kept low notwithstanding the presence of the leading representatives of the box-making trade. These latter apparently did not care to go beyond the prices paid by the regular dealers, to whom the bulk of the parcel fell.

St. Petersburg battens sold freely, but at cheap figures. Throughout the sale things moved off pretty freely, and the bidding was fairly brisk; but, if we except the oddments, without improving prices. The Tornea battens, ex Consul, described as 1st and 2nd, went very cheap, and those who bought them cannot have done wrong. The highest price of the sale was for some 3x12 12 ft. Quebec bright pine, which ran up to £27 10s.

There were some heavy parcels of unreserved flooring offered, and for which the competition was of a lively description. The cargo of the Volante, from Fredrikstadt, one of the leading shipments (Hjornberg's), was keenly competed for by the leading members of the trade, all the big dealers being to the fore. Prices, though slightly better than on the last occasion, went, nevertheless, much under last year's values, and 10s. 6d. was the most the room cared to give for 1st 1x7 yellow, and other sizes at proportionately low rates.

The impression left on the mind, after watching the proceedings closely, was that, if there was no pronounced advancement, things, at any rate, were no worse, with a more general readiness to buy amongst those who were present.

### GLASGOW.

The *Timber Trades Journal* of Feb. 28th says:—The timber trade during the past week at Clyde ports has been singularly quiet. There have been no arrivals except some small parcels of state staves, and no auction sales have taken place.

The local demand presently seems to be rather languid, but some may be looking forward to supplying themselves at the sale of American timber and deals; to be held at Greenock on 5th prox.

Apart from what has gone into shipbuilders' hands, the deliveries from Greenock of timber in rafts are not far short this year to date compared with corresponding period last year—say 140 loads less. What is received in this way at Broomielaw crane is taken up mostly for house-building purposes.

Scarcely any change is reported as having taken place in shipbuilding. As regards the Government contracts, the Lords of the Admiralty a few evening ago intimated that they have lost no time in completing the specifications in more detail than formerly, and in accordance with the recommendations of the committee which had recently reported on contracts and repairs.

Six torpedo cruisers are included in the contract, decision as to which is now awaited, and in the course of a fortnight the Admiralty expects to be in a position to again invite tenders, this time for the belted cruisers, and the two ironclads, and offers will be immediately called for the construction of ten powerful torpedo boats.

At the annual meeting of the Shipowners' Association, held here a few days ago, the chairman mentioned he was sorry he could not congratulate the shipowners on the present condition of the trade; there was too much tonnage everywhere afloat, and at all the important ports of the world competition for employment was such as to compress rates to unremunerative figures.

### FROM THE LOGGERS.

Reports from most of the logging districts of the Northwest are to the effect that the recent rise in temperature has materially improved the roads, and made the concluding operations of the season more easy. In some isolated cases, however, the melting process has gone so far that the roads are nearly bare. In central Wisconsin the camps are beginning to break up, and the great bulk of the log crop is in. Some of the loggers in that district are coming out with no more, or less, than the amount intended, but others are doing such good work that the fear is expressed that they may overstep the mark. From the Saginaw district and from both shores of LakeMichigan comes confirmation of an actual curtailment in the crop, equal to that anticipated at the beginning of the season. The Black river also sends the cheering intelligence that the crop is likely to fall below the estimates. The Mississippi district is still in doubt, and far sighted operators are hoping that the warm and thawing weather may continue. Much still depends on the weather. If it should be cold roads would generally be in better shape for hauling them than at any previous time during the winter; and, in that case, many camps, particularly in the jobbing districts, would go briskly on with work. It is to be hoped that spring will speedily come.—*Northwestern Lumberman.*

### Navigation of Lake Michigan.

MILWAUKEE, March 9.—The steamer Wisconsin arrived from Grand Haven last evening. This is the first boat to arrive from the east shore for a month. She sighted several steamer fast in the ice. One is supposed to be the Oneida, two days out from Grand Haven, and another the City of Ludington, which has been fast n the ice for 22 days.


### Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

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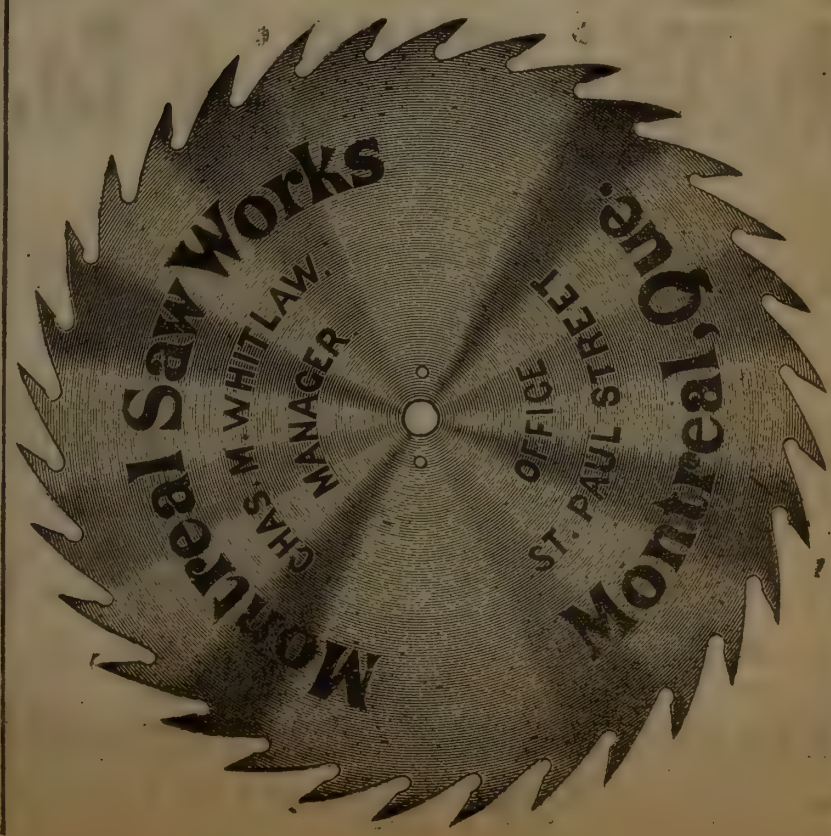


Catalogues and Price Lists furnished on application.

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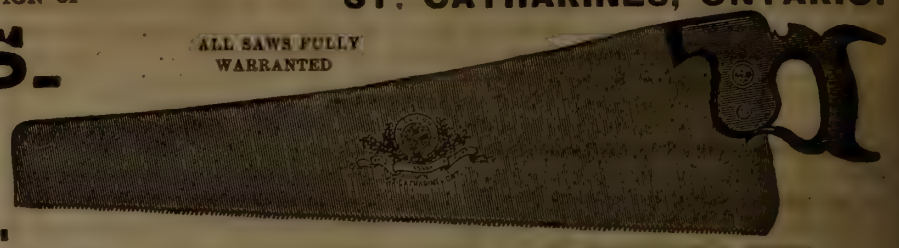

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**McMartin Patent Double and Single Acting Lift and Force Pumps**

For Ships, Barges, Railroads, Factories, Mills, Cisterns, Deep Wells (non-freezing), and Hand Fire Engines, and Wind-Mills for pumping water. Also geared windmills for cutting straw, roots and grinding grain for feed.

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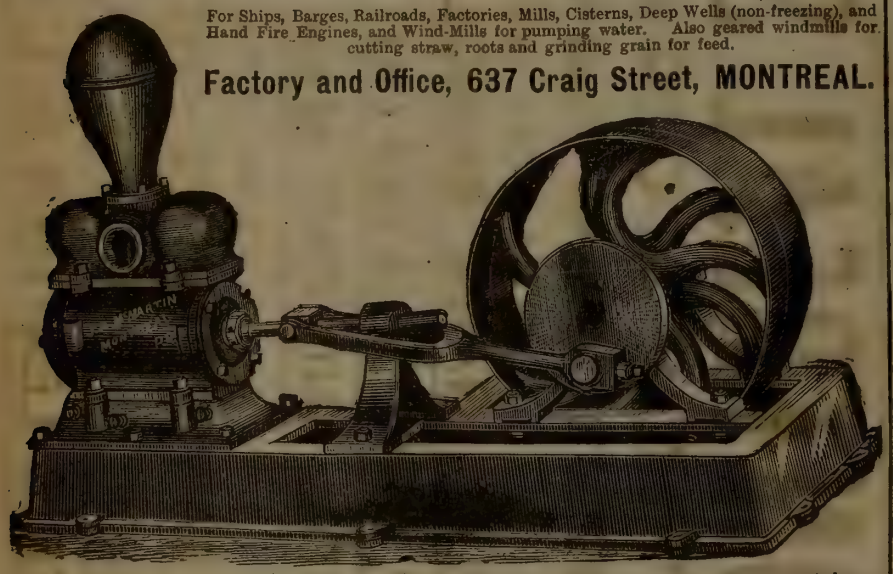


The above cut shows our Double Acting Brass-Lined Horizontal Suction and Force Pump, mounted on a Cast Iron Bed Plate with tight and loose pulleys, 4 inch face, 18 inch diameter. This is one of the most compact and powerful pumps of the kind yet out, with Bed 4 feet long and 2 feet 2 inches, where the pulleys are placed, all being in good proportion. The pump has a guide to the piston rod, and is driven by the connection rod attached to the disc with steel pin and wrought iron connections. The valve seats and valve are made of gun metal, and easily got at by bolts on either side of the pump, so that access to the bottom or top valve can be had without any difficulty. We make two sizes of these pumps, which are adapted for mills, factories or tanneries. We make these pumps with a clutch to drive them direct, when so ordered, and dispose of the pulleys and belt. All enquiries will be promptly answered, by addressing the above, and catalogues of our pumps sent out.

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**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

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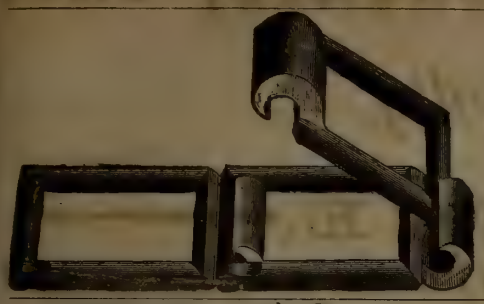
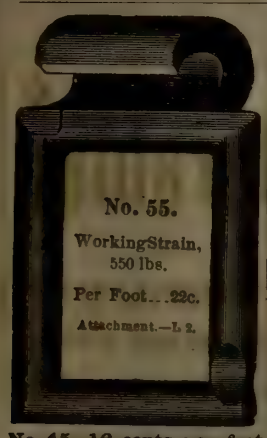
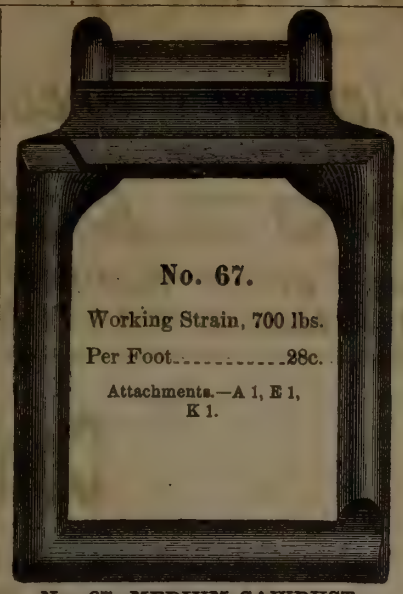
# EWART'S PATENT LINK BELTING

For CONVEYING, ELEVATING, and TRANSFERRING every Product of a Saw Mill, into, through and out of the mill.

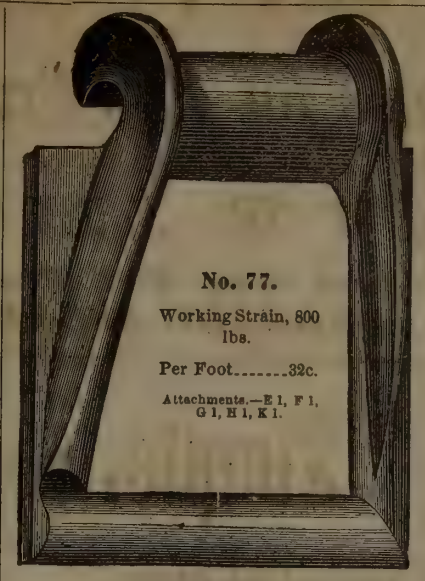




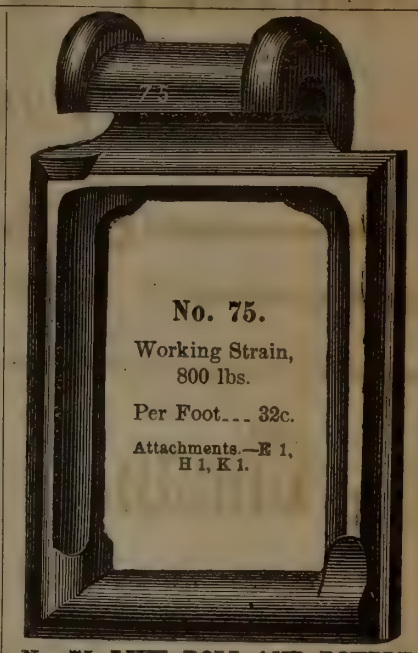
No. 45—16 cents per foot and 55 used for light Sawdust Conveyors.



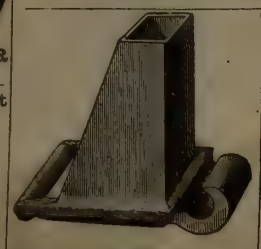

No. 67—MEDIUM SAWDUST CONVEYOR CHAIN.

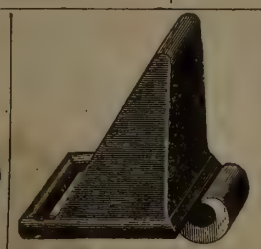



No. 77—CONVEYOR AND LIVE ROLL CHAIN.



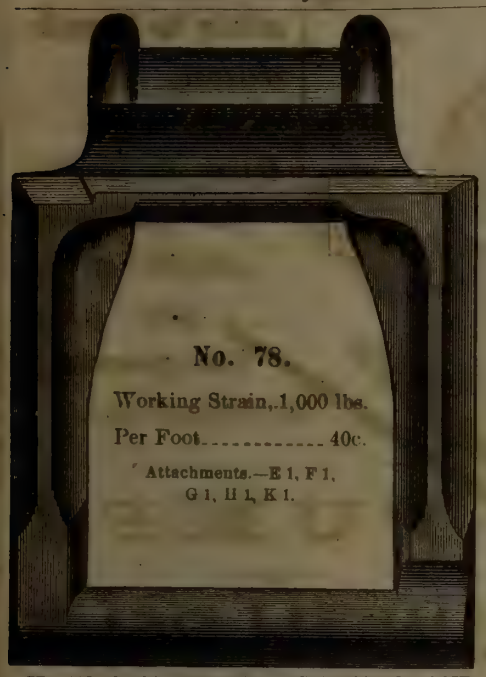

No. 75—LIVE ROLL AND DOUBLE STRAND ELEVATORS.




# GIANT CHAIN for Log Haulups

*And Main Refuse Conveyors for Large Mills.*

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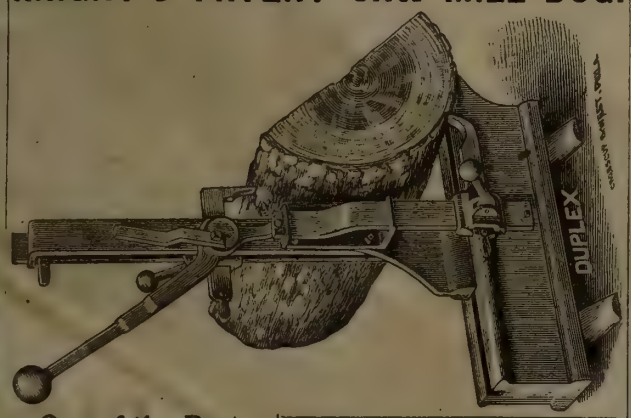
## KNIGHT'S PATENT SAW MILL DOG.

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## LOG TOOTH.

No strain or wear on Rivets.

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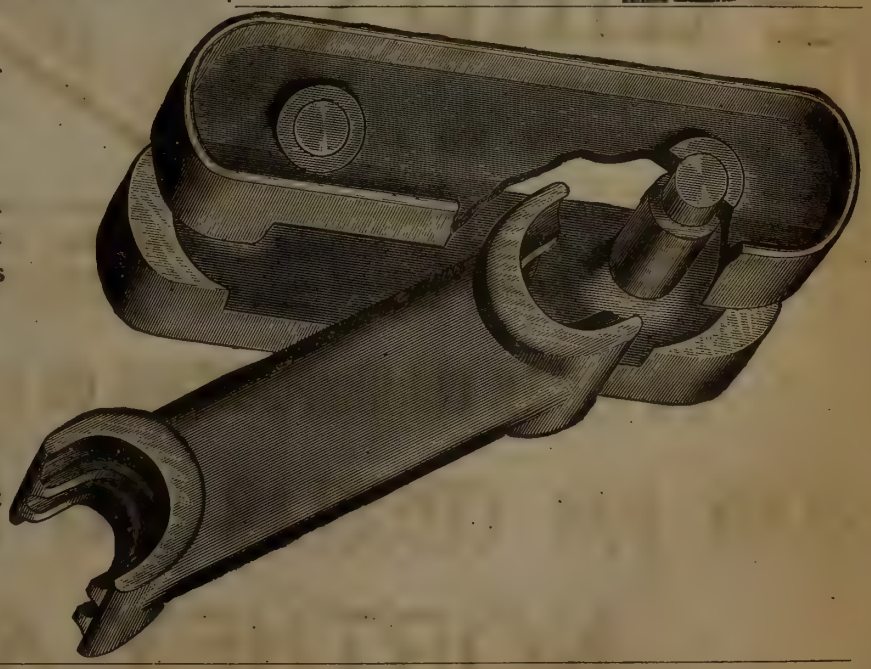
Special Prices for Giant Chain during next 60 Days.



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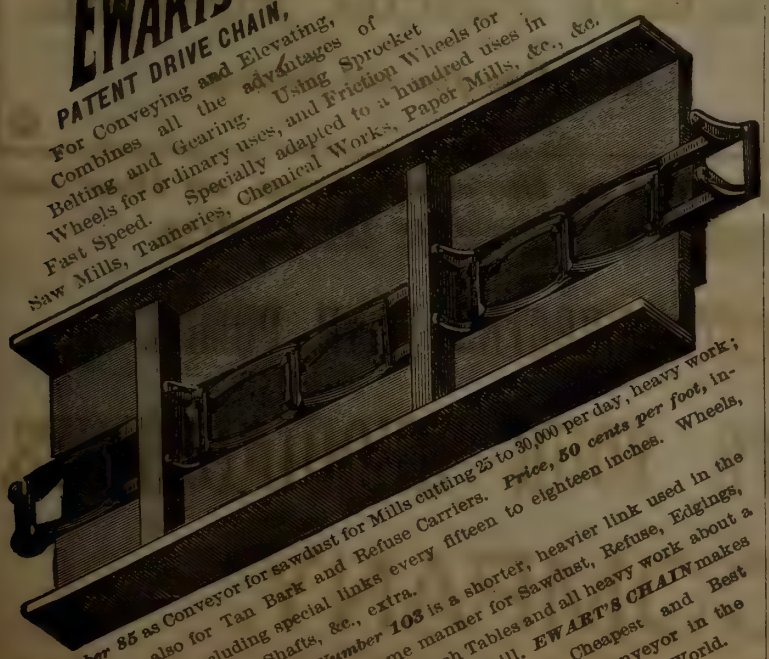
For Conveying and Elevating, Combines all the advantages of Belting and Gearing. Using Sprocket Wheels for ordinary uses, and Friction Wheels for Fast Speed. Specially adapted to a hundred uses in Saw Mills, Tanneries, Chemical Works, Paper Mills, &c., &c.



*Number* **85** as Conveyor for sawdust for Mills cutting 25 to 30,000 per day, heavy work; also for Tan Bark and Refuse Carriers. *Price,* **50** *cents per foot,* including special links every fifteen to eighteen inches. Wheels, Shafts, &c., extra.

*Number* **103** is a shorter, heavier link used in the same manner for Sawdust, Refuse, Edgings, Slash Tables and all heavy work about a sawmill. *EWART'S CHAIN* makes the Cheapest and Best Conveyor in the World.

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*Pumps for Fire Protection a Specialty.*

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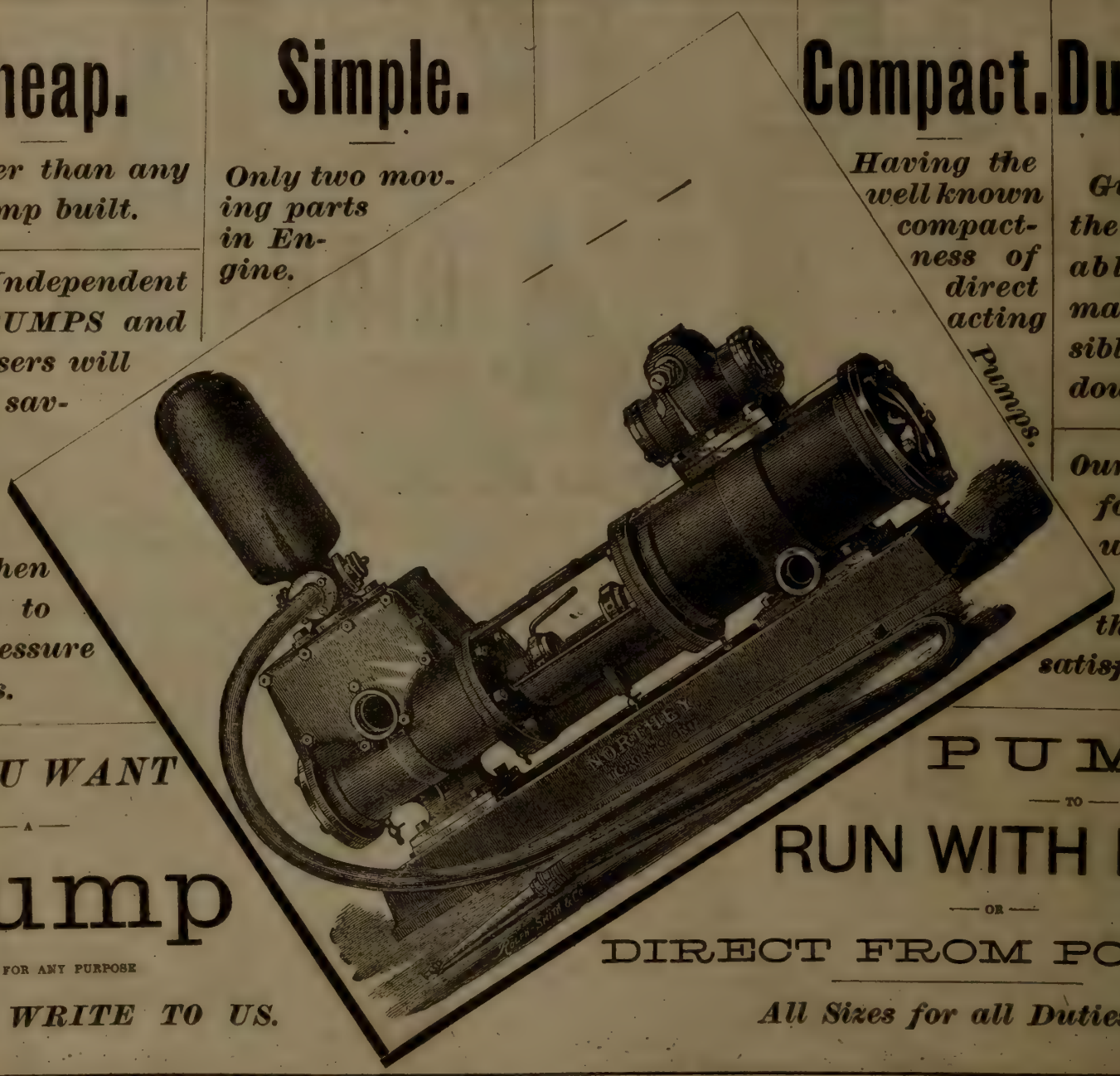
**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

**Simple.**

***Only two moving parts in Engine.***

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***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

***IF YOU WANT***

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**PUMPS**

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**RUN WITH BELT**

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***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

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## SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

## NORTHEY & COMPANY,

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*Importers, Jobbers and Roasters of*

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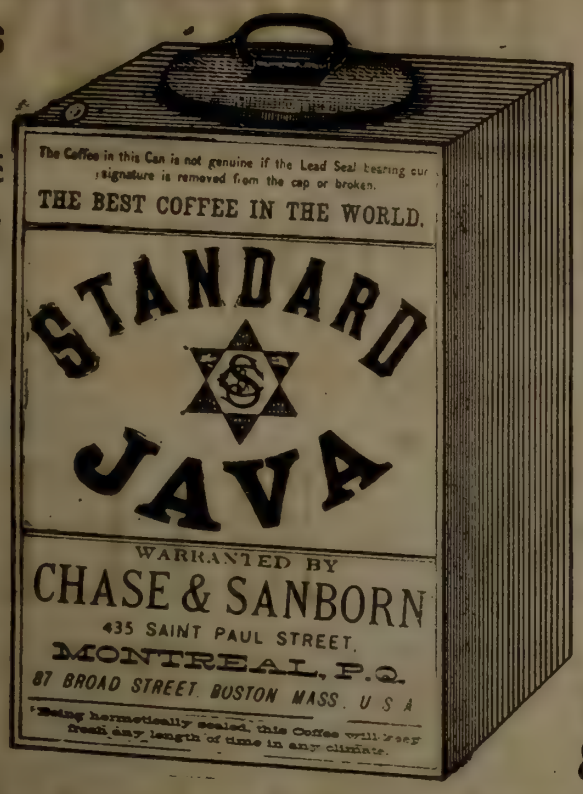
Buy this Brand, which is the only and Original Private Plantation JAVA on the Market.




Our Coffees always put up in 50 or 25 Lb. Air-tight Tin Cans thereby retaining all the Original Strength & Aroma.

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***The Wholesale Grocers of Canada are our Selling Agents. Order our Coffees through them.*** 12tf.

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## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen leg as well as a soft one, for cutting Scantling, Square Timber, &c. These Cants cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

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**At Toronto, Ont., and St. John, N.B., we made the best Display of Tents ever shown in Canada—and we never substitute an article inferior to sample in filling orders.**

**We control "THE LATOUR PAT." for Camp Furniture, the best on earth. The only Gold Medal ever given for this class of goods was awarded to the Latour Camp Furniture at Toronto in 1882.**

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**We have secured the services of the best practical sail-maker in Canada. Orders in this line will receive prompt and satisfactory attention, as is usual with all orders entrusted to us.**

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***184 SPARKS STREET, OTTAWA.***

1884

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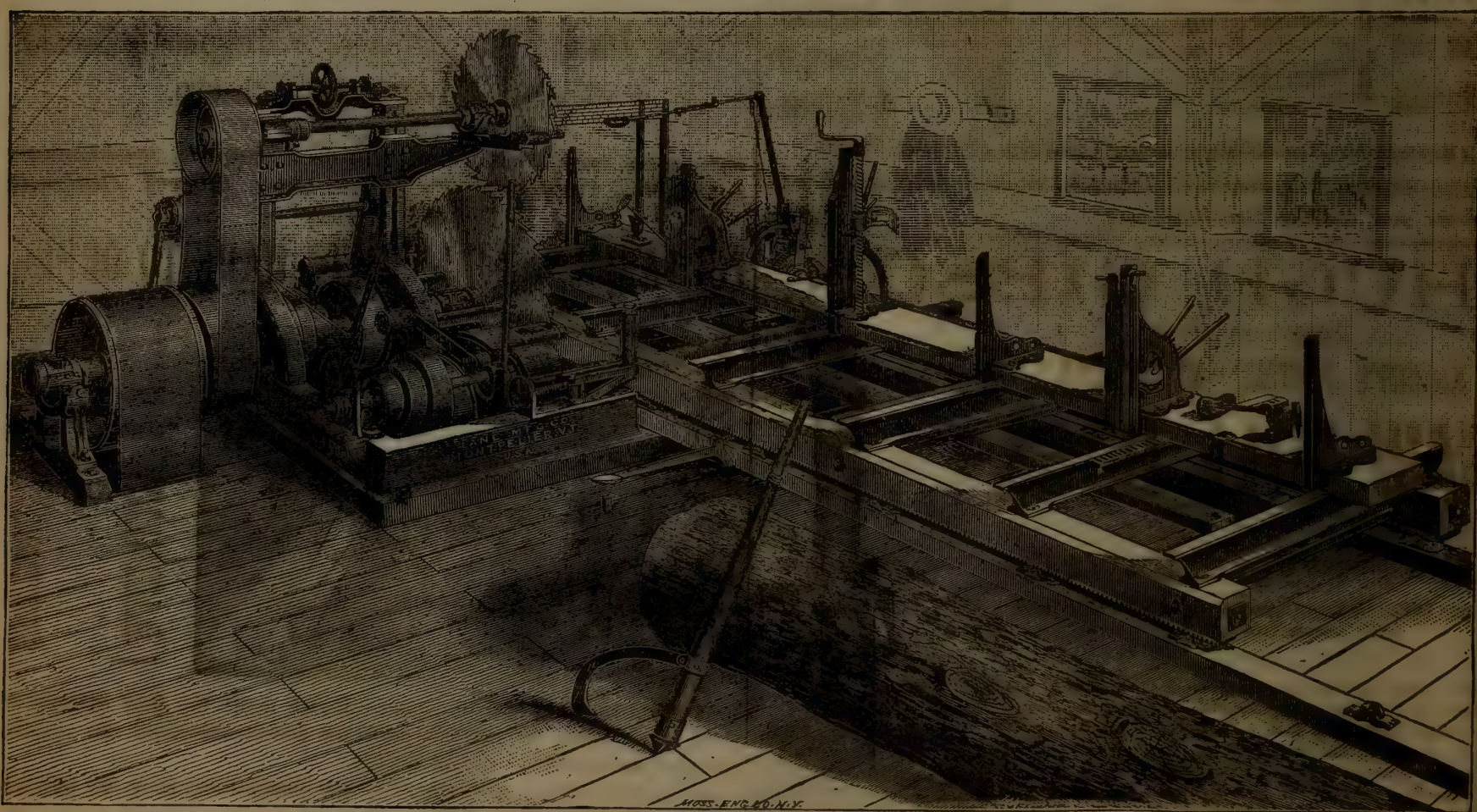
## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS



Circular Saw Mills,
Saw Mill Set Works,
Double and Single Traveling Bed Planers, Shingle Bolters,
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Clapboard Planers,
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# The William Hamilton Manufacturing Co'y

MANUFACTURERS OF (LIMITED,)

# SAW MILL AND GENERAL MACHINERY

## PETERBOROUGH, ONTARIO.

## Our Saw Mill Engines

***Are made strong, neat and durable, knowing well the ever varying strain they are subjected to in driving a Saw Mill.***

### IRON AND STEEL BOILERS

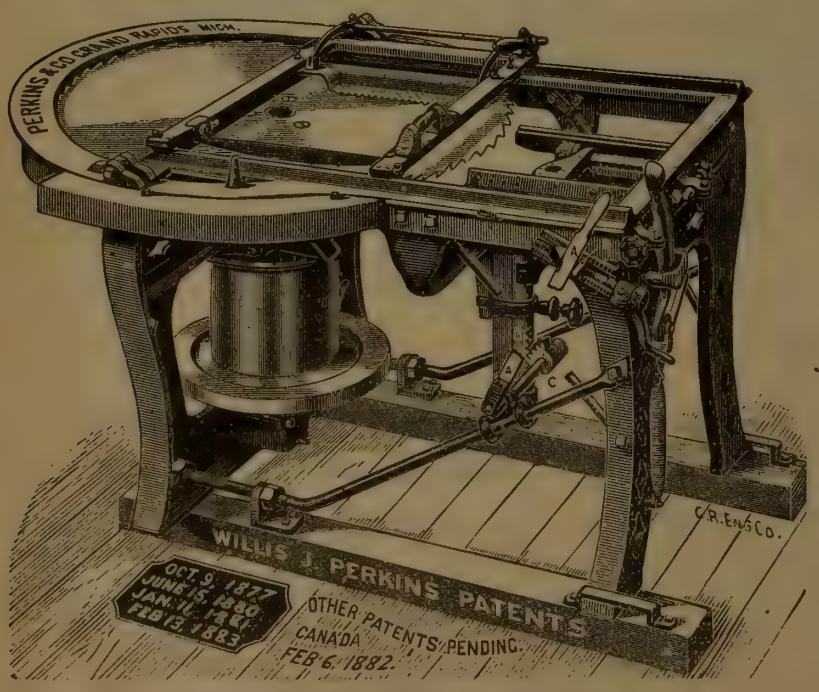
***of the Best Material and workmanship.***

We wish again to call the attention of our Canadian Lumbermen to our First Class IMPROVED SAW MILL MACHINERY, Heavy and Light Circular Mills; our Pat. Twin Circular, with Steam Rack or Rope Feed for Slabbing; Iron Oscillating Gang Mills of the most improved designs; besides our Patent Improved Long Cylinder Steam Feed. We would call attention to Cunningham's Oscillating Twin Engines for Feeding Long Carriages with Rack or Rope; our Patent Wrought Iron Jack Chain with Short Trucks; Heavy Wrought Iron Refuse and Sawdust Chains: Trimmers and Slab Cutting Tables; Lath Mills and Bolters; Lumber Markers; Trout's Patent Automatic Log Counter, to count the Logs as they come into the mill; Covel's Patent Saw Sharpener; Saw Swages and Improved Bench for Dressing and Hammering Saws; Perkins' Patent Shingle Mills; Bolters; Sappers; Jointers; Drag Saws; and Packers. We also forge a very superior ANCHOR for Lumbermen.

We are now introducing to those requiring Small Mills our IMPROVED SEMI-PORTABLE MILL, got up strong and durable, and are now adding to the many Machines for cutting Lumber. MILNE'S IMPROVED HEAVY BAND SAW for cutting Lumber out of large logs. The small carfe these Mills take out in using a No. 18 Gauge Blade, is a very important point in saving Lumber, besides the small amount of power required to drive it, making it a favourite in sawing lumber—capacity from 25 to 30 thousand per day.

We are prepared to submit plans and specifications, together with any information our many years of close application to the Saw Mill Business may have suggested to us; also when required to enter into contract for supplying the machinery and all material complete.

Communication from anyone intending to build Saw Mills solicited.

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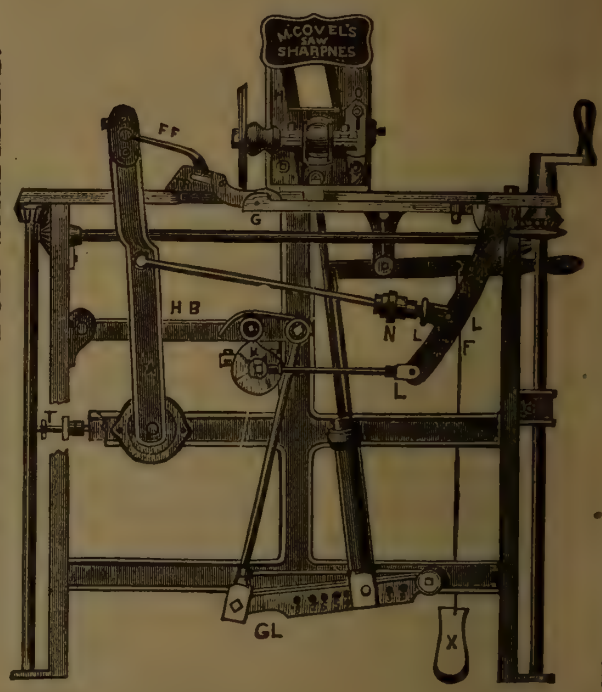
The only Horizontal Saw Machine on which a thick slab can be cut from the bolt. SECOND CUT ALWAYS A SHINGLE. Knots, rots, hearts, bolt squared rift-ways, and all irregularities cut off at one clip. This improvement will pay price of the whole machineevery season by increase of quality and quantity cut.

OUR SPRING STOCK OF

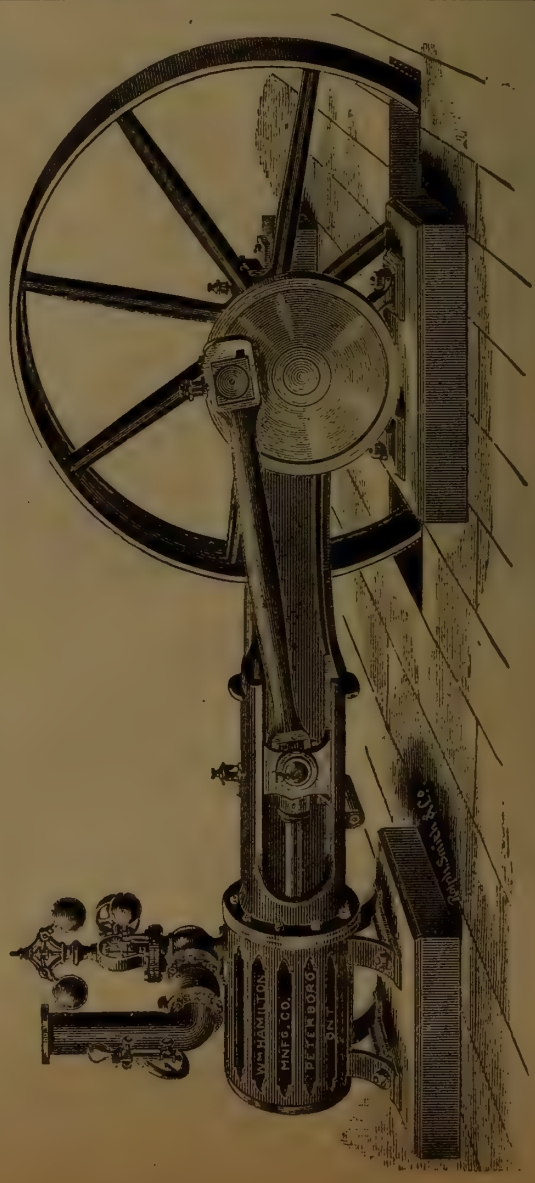
## The M. Covel Patent Saw Sharpener

*IS NOW READY FOR SHIPMENT.*




*They are now so well-known to the Lumberman, that their utility requires no comment.*

## ENGINES AND BOILERS.




*This Cut represents our SAW MILL ENGINE, of which we make the following our Standard Sizes, 12x16, 16x20, 18x24, 20x24 and 24x80, built Strong and Substantial for Heavy Work.*

# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., APRIL 1, 1885. NO. 7.



# HARRIS, HEENAN & Co.

124 AND 126 QUEEN STREET, - - MONTREAL.

## Patent Stitched—Steam Power Pressure Stretched—Oak Tanned

**TESTIMONIAL.**

Ira Gould & Sons', City Mills,
Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS,—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

**TESTIMONIAL.**

PEEK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

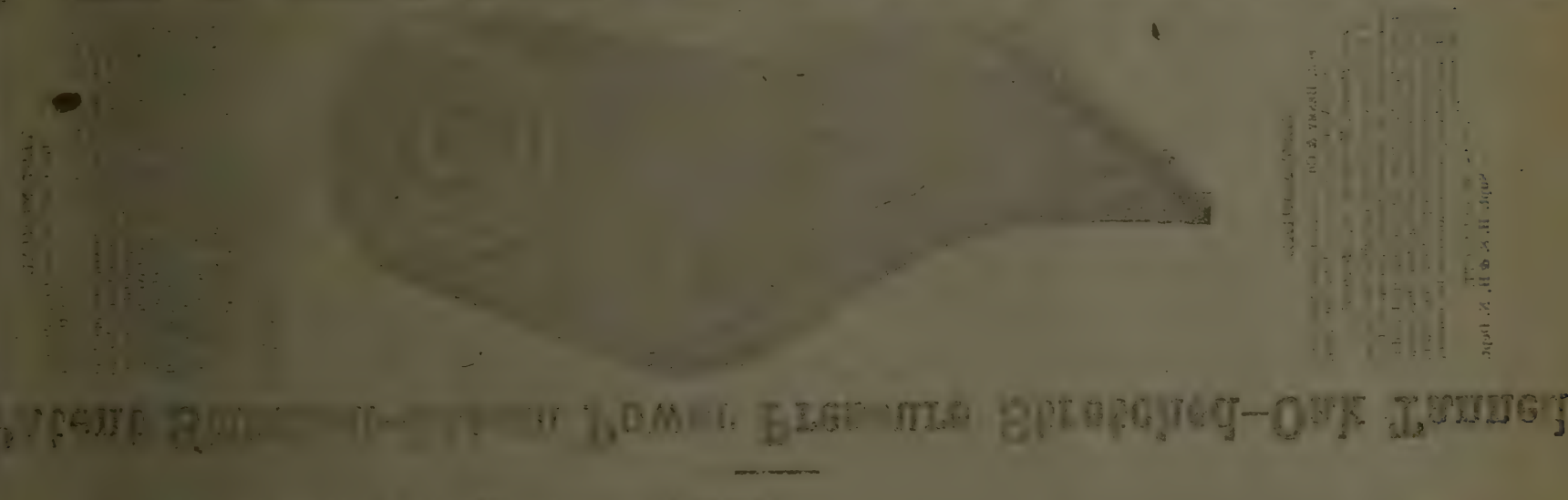
*The Best, therefore the Cheapest, Belt in the market.*
*Replaces, when used, all others.*
*More Pliable and Durable, especially at the splices.*
*Stretches but little, always retains it original width.*
*Superior for Cross or Double Belts.*
*Runs straight and true, does not start at the laps.*
*Single equals medium double.*

25 per cent Stronger, 33⅓ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

# LUMBERMEN'S PRINTING AND STATIONERY.

*We can supply anything in the line of BOOKS, BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices, and everything necessary to a complete office outfit.*
*All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.*
*BOOK-BINDING of every description got up in a Neat and Superior manner.*
*ACCOUNT BOOKS Ruled and Bound to any desired pattern.*

Address: "THE CANADA LUMBERMAN," Peterborough, Ont.



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### TRENT VALLEY CANAL.

THERE have lately been a great many inquiries made here for lumber for the South American market, and we have also noticed that the export for last season, of lumber to that market from Montreal, was double the quantity exported the season before. The importance of the early completion of the Canal to this section of the country, and to the North Shore and Georgian Bay districts cannot be overestimated, as lumber can then be easily shipped in barges through the Canal to the Bay of Quinte and thence to Montreal, where it could be loaded into vessels, and the freight so far would not be as much as the duty charged on lumber going into the United States. If the Montreal people would only see this matter in the right light they would use every effort to forward the completion of the Canal, as Montreal would then become the point to which lumber would be shipped for the old country and South America, which latter trade is rapidly increasing. Another point in favor of the Canal is that the route from Lake Superior to Montreal is 500 miles shorter than from the same district through the Erie Canal to New York.

### QUEBEC.

It is reported that Grant's raft, the Scotch Syndicate timber, has been sold, 100,000 feet of square white pine, 50 feet average, two year old timber, at 25 cents; also, the same waney board timber, 20 inch average, at 34 cents. It is said that last year only 20 cents was offered for square timber.

It is reported that some of our merchants have made fair sales of timber on the other side of the Atlantic, and that several of the old traders have been chartered, amongst them the Gladstone, Monarch, and Premier.

Also, the following Norwegian ships have been chartered for first open water:—Persia, Craigallion, Royal Visitor, Price Eugene, Festinalente, Almedia, Norway, Chatham and Siechar.

Several large sales of timber and deals are said to have taken place recently, but the prices have not transpired.—*Chronicle.*

### IN MUSKOKA DISTRICT.

The Georgian Bay Lumber Company is taking out about 20,000,000 feet of lumber from the Muskoka district this season.

The *Banner* gives the following figures of the output of saw logs this season: The Muskoka Mill and Lumber Company will take out 6,000,000 feet which will be floated to the Muskoka mills. The company has about 14,000,000 of logs left over from last season. Mr. Thompson & Baker will cut 3,000,000 feet. Mr. I Cockburn is taking out 4,000,000 feet of logs, and 50,000 cubic feet of board timber.

Thompson & Baker's operations:—1,500,000 from township of Muskoka, delivered at their mills by their own teams. McLean and Oakley —Gilbert Martin and James McMurray, jobbers —100,000; Macaulay—Richard Piper, jobber—300,000; Utterson firm are purchasing 100,000 from Mr. John Faulkner. There is also 100,000 stuck in Mary Lake from last year. Aggregate 3,000,000. I Cockburn is taking out 4,000,000 as follows: Township of Cardwell—own camp David Curtain, foreman—1,000,000; township of McMurrick, own camp, Wm. Smith, foreman, 1,500,000; township of Chaffey, own camp, D. B. McDonald, foreman, 1,000,000. Several small jobbers, aggregate 500,000. Township of Sinclair, Urquhart and McAllister, 500,000, and in addition 50,000 cubic feet of board timber.—*North Star.*

### HOW TO MAKE HARDWOOD LANDS PROFITABLE.

Until recently pine has been the king of woods in Michigan and Wisconsin. Whenever the lumber industry in connection with those states has been spoken of it has always been understood to mean the manufacture of pine. Although it has been well known that there were vast areas of hardwood lands in the northern parts of Michigan and Wisconsin, they have considered of secondary importance, while pine has absorbed the most attention and commanded the greater share of effort. Lately, however, owners begin to realize that there is value in their hardwood lands. It has been demonstrated that the northern counties of the lower peninsula of Michigan are well adapted to farming and to the support of a dense population. The same is true of large portions of the upper peninsula, and sections of northern Wisconsin. It has dawned on the minds of men who own large areas of these hardwood lands in connection with their pine, that the time has come when something can be done to make them profitable.

A gentleman connected with one of the leading pine manufacturing companies on the upper peninsula, which also owns a large area of land in that part of Michigan, lately remarked to a member of the same concern that the time had come when the company should begin the sawing of hardwood as well as pine. His plan was to enter upon a tract and clear it of all standing timber, convert all the available stuff into lumber and square timber, and use the residue for making charcoal. He said that the iron industry, already large in that section of the state, would increase, and charcoal was what was required for that purpose. For this reason he thought that the demand for charcoal would constantly enlarge, and that all that could be made would find a market. His idea is that money can be made out of the timber in the process of clearing, and then the land will have become valuable for farming purposes. Good hardwood lands in the upper peninsula, in their wild state, may be said to be worth now from $1.25 to $4 an acre, according to location. After they are thoroughly cleared and made fit for farming, they will be worth $10 to $25 an acre. Thus it will be seen that if a profit can be realized in first utilizing the timber, the resulting value of the lands would be enough to induce their owners to lumber and clear them. In the case of pine lands it is generally considered that the denuded areas are nearly worthless for any purpose whatever; though this has been found to be a mistake in portions of the lower peninsular, where very good farms have been made of stripped pine lands. But there is no question about the agricultural value of land that has produced a growth of maple, elm, basswood, and other woods that are characteristic of northern Michigan and Wisconsin.

To capitalists that are tired of speculation, who seek a solid and safe investment, and who, withal, have a love of the soil, like to own and manage it, and receive their revenue from it—a disposition which still lingers in some of our people, as a heritage from English and continental ancestry—the possession of tracts of the magnificent hardwood timber lands of Michigan and Wisconsin cannot but be satisfactory in future results. An estate of such a character, rightly managed, cannot fail to afford a fair income—first in timber, and then in agricultural products. This conclusion is based largely on the situation of the northern counties of Michigan and Wisconsin, much of their area contiguous to the waters of the great lakes, and thus accessible to the most active markets in the country at a low cost of transportation. The lumber operations on a tract of land thus owned for revenue should be conducted wisely and carefully, with a view to the prevailing market for forest products. Nothing should be slaughtered merely to get it off the land. It should always be borne in mind that a thrifty tree had better be left standing for a few years than marketed at no profit. By thus judiciously husbanding forest resources much could be made of them in a course of years. A few years ago the elm and maple of the Grand Traverse region in Michigan was thought to be of no value when land was to be cleared; these timbers were remorselessly cut and burned in log heaps to get them out of the way. Now such timber, that is at all accessible to water, has a market value, and is being turned into money. Small farmers who raise crops or starve cannot afford to wait years for their timber to come into market, but capitalists can, and they can devise means for accelerating the coming of the market. An owner of a timber estate for revenue could often add the manufacture of wood in various forms to his industry, and thus not be wholly dependent on the sale of the raw products. In one way and another he could utilize all his timber as a source of revenue, and clear the land for farming purposes only when the last staddle had been turned into money. He could also pursue a course of practical forestry, and devote to perpetual woods those portions of his domain better adapted to forests than anything else. The scheme as a whole would be simply an economical management of a wooded estate, handy to markets, for the purpose of realizing all possible profit from it.—*Northwestern Lumberman.*

### PROTECTING SAW MILLS FROM FIRE.

A correspondent of the London *Timber Trades Journal* suggests the following precautions for preventing fires in saw mills and other wood-working establishments:—

"In the first place keep the whole of the mill clean and free from shavings, sawdust, oily waste, etc. Put your glue heater outside the mill. Have your boiler-house completely shut off from the mill, and strictly forbid smoking inside the building. If you have a pressure of water you should have half a dozen hydrants in various parts of the mill, or, better still, introduce a system of pipes fitted with "automatic sprinklers" overhead; these are now being rapidly introduced into this country. They are arranged to come into action by the heat of the fire itself, and require no one to work them; they are, therefore, especially valuable at night. They can at the same time be made to give a fire alarm, by sounding a gong, and they may be arranged to act in a gradually increasing temperature in 15 to 18 seconds, at 155 degrees of heat. Failing in this plan, you should have a supply of either extincteurs, hand-pumps, or buckets, and see that they are constantly used."

### A Splendid Foundry.

The St. John, N. B., *Sun* publishes a description of Messrs. T. McAvity & Son's foundry in that city. Through many years and from a small beginning the McAvity Brass Foundry has grown up into vigorous life and a great working concern. The structure is adapted especially for the brass founder's and steam-fitter's business. The different flats of the building make an area of 20,000 superficial feet, on which compacted space 60 workmen are employed and with a twenty horse-power steam engine, 30 lathes, and other great mechanical appliances produce the articles called for daily to use in mines, steamships, engine rooms and gas or water arrangements. The detailed description given in the *Sun* shows the establishment to be a thoroughly equipped as well as a progressive one.

ROBERT DARRAH, while felling a tree at Britton, Lenawee county, Mich., was instantly killed by the tree falling on him and nearly cutting him in two.

## POLLUTION OF RIVERS.

A bill has been introduced into the Ontario Legislature which is of interest to lumbermen, especially to those of the Ottawa River. We give the following report of the debate on the second reading of the bill as given in the Toronto *Globe*:—

HON. O. MOWAT, in moving the second reading of ths bill respecting saw mills on the Ottawa River, said, in an Act of the Dominion Government, provision was made for preventing sawmill owners on damable streams and rivers from creating a nuisance by throwing out sawdust and other rubbish on such streams. This Act was not intended to conflict with that of the Dominion, but to secure an object that the Dominion Government could not deal with. The Dominion Act extended to the whole Province, and this Bill only dealt with the River Ottawa. This Bill did not propose that riparian proprietors should lose their rights to full compensation. The Government did not propose to go any further than to say that millowners should not be at liberty to throw their refuse into the river, but inasmuch as they got the benefit of the stream in that way there was no reason why reparian proprietors should suffer. So they proposed that

Wherever it is proved to the satisfaction of the Lieutenant Governor in Council, that it is in the public interest that the owners or occupiers of any saw mill situate on or near the River Ottawa or any of its tributaries, should not be prevented from throwing sawdust and mill refuse into the same, the Lieutenant-Governor in Council may by Order in Council, published once in the Ontario *Gazette*, declare the owners or occupiers of the saw mill to be entitled to the benefit of this Act.

In such case riparian proprietors or other persons shall, notwithstanding, be entitled to the same damages against the owners or occupiers of the saw mill, for any injury or damage sustained by such riparian proprietors or other persons by reason, or in consequence of, the throwing of sawdust or mill refuse from the saw mill into the said river or tributary thereof, as if this Act had not been passed; but shall not be entitled to any relief by injunction or in the nature of injunction.

This section shall apply whether the injury or damage is a continuing one or not, and whether the said riparian proprietor or other person is plaintiff in the action or is a defendent therein proceeding by way of counter claim, and shall apply to pending suits as well as to suits which may be hereafter brought, but the costs incurred in any pending suit shall be disposed of as if this Act had not been passed.

He supposed that there was no doubt that the Dominion Act upon this subject was reasonable and proper and in the public interest, and in dealing with the subject this Government went no further than was necessary.

MR. ROBILLARD pointed out that if the matter were represented to the Lieut-Governor in Council by the lumbermen, there would be no difficulty at all, but he mentioned that after the spring freshets several of the farms along the river were bestrewn with sawdust and other refuse.

MR. MEREDITH said the Bill in its present shape struck him as being very objectionable, because it gave the Government power to restrain in a matter which might prove to be the destruction of a mill property; further, that it was retroactive legislation, and still further because it placed in the hands of the Executive the power which, in his humble judgment, ought not to be vested in it. What he suggested was that the power should be vested in the Courts.

HON. O. MOWAT said he would be extremely glad if the suggestion to place the matter in the hands of the Court could be proved to be a practical one. The application for such a measure came, quite irrespective of party, from a number of millowners, and he understood this to be the best way of providing machinery to accomplish the object in view. He read a number of documents showing the course that the Dominion Government had taken upon the matter, and showing that in their legislation the matter was left in the hands of the Governor in Council. He proposes, therefore, to follow the course of the Dominion authorities. It appeared that the subject was of such a character that it would be difficult for the Courts to deal with it. Several of the mill owners had followed the instructions given by the Dominion Government; but others had not paid any attention to them.

MR. MEREDITH said the Act of the Dominion authorities did not deal with private rights.

HON. O. MOWAT said it referred to public rights, but to private rights too. He did not want jurisdiction in the matter at all, and if it was possible to avoid it he would try to do so, and before the House went into Committee he would see if there was any machinery by which the matter could be dealt with in the Courts. If there was he would leave it to them.

MR. MEREDITH said so far as the millowners were concerned the Dominion had power to deal with them, and the only question was as to riparian proprietors' rights in the matter, which he thought would be better left to the Courts. Here they were dealing with private rights.

HON. O. MOWAT said it was the public interest that requested it should be done.

MR. BASKERVILLE thought that the measure should be very carefully considered, in the interest of the millowners.

MR. YOUNG—I was very much at a loss to understand the meaning of the Bill when I first read it, because I recollected that for a great number of years the people of Ottawa had been making great efforts to get the Dominion Parliament to prevent the millowners putting their sawdust and refuse slabs in the Ottawa River. Again and again was the matter brought before the Dominion Parliament by the people, who said that the fish in the river were all being killed, and that the navigation was being impeded. Now it seems to me to be just opposite to the popular view to give increased facilities to the millowners in this direction. My own feeling was then, and is now, that the millowners get too much of their own way; a great deal too much to their own advantage and the public suffer. To my own mind there is no doubt at all that the people have a right to complain of the millowners putting their slabs and their other refuse in the river, but at Ottawa the millowners were powerful enough to prevent the Bill passing in its original state. I believe that it would be quite against the popular wish to give the millowners increased facilities in the direction that this Bill is aiming at.

HON. C. F. FRASER said it must be borne in mind that there would very probably be legislation in Quebec in the direction that this Bill was aiming, and it would be a hard thing if the Quebec millowner could put his refuse into the river and the Ontario millowner could not do so. Then they must look at the question of a conflict of jurisdiction arising, which it was very desirable to prevent.

HON. T. B. PARDEE said a deputation had waited on the Government. When the representatives were asked why they did not burn the sawdust they replied that they could not. It seems that this had been inquired into, and a commission appointed to see if the sawdust and the other refuse could be burned. The commission reported that it could not be consumed, as the mills on the Ottawa were run altogether by water power. So important did the Dominion Government consider the results of the commission that an order in Council was issued relieving the mills from providing some means of consuming their sawdust.

MR. YOUNG said he did not think it ever had been contended, as well as his recollection extended, that the millowners could dispose of all the offal or refuse so as to carry out the Act to its entirety, but he never heard that the millowners could not do without putting their sawdust in the river. It was a matter of expense to them, and they were not willing to spend the money. With regard to relaxing the Order in Council the millowners were a very powerful body. They could go to Ottawa with large deputations, and the result was that the popular interests had to give way to their wishes. He feared that the millowners having failed to get what they wanted at Ottawa had come here to get the matter better fixed. He thought the millowners should be compelled to so dispose of their refuse as not to destroy one of the finest rivers in Canada.

MR. WHITE objected to give the millowners the right to put their sawdust in the river. He thought the legislation ought to be delayed until the other side had been heard from.

MR. WOOD considered that the interests of the riparian owners had been too much considered and that of the millowners too little.

MR. BASKERVILLE thought it was utterly impossible for the millowners to keep all of the sawdust out of the river.

MR. KERR said the mills were so situated in some places that the sawdust could not be got at and he did not know that it did much damage.

The Bill was read the second time.

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THE Campbellford *Herald* says:—The managers of Gilmour & Rathbun shanties report an excellent crop of saw logs. The getting out was wonderfully pleasant and the drives will be large. Look out for lively times on the river


# NATIONAL PUMP WORKS.

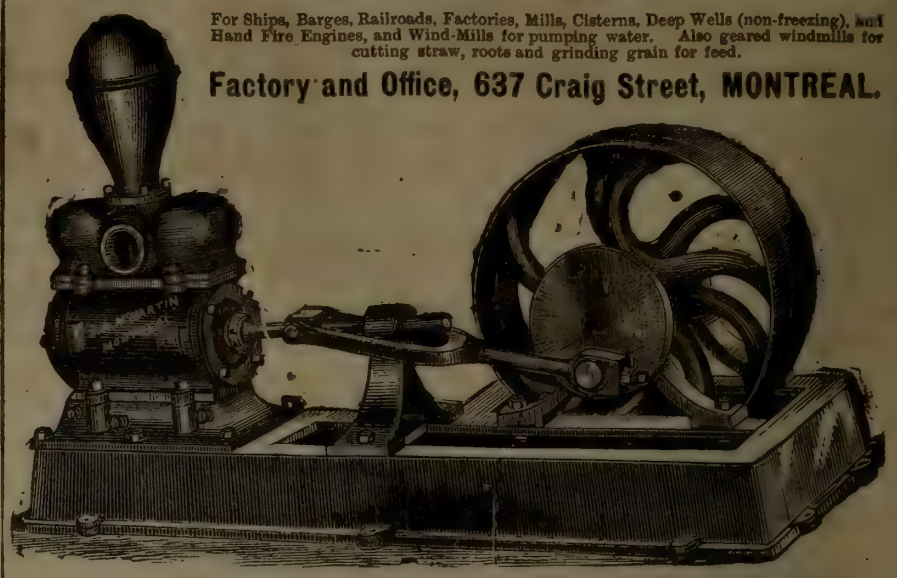
## J. A. McMARTIN & CO.

SOLE MANUFACTURER OF THE

**McMartin Patent Double and Single Acting Lift and Force Pumps**

For Ships, Barges, Railroads, Factories, Mills, Cisterns, Deep Wells (non-freezing), and Hand Fire Engines, and Wind-Mills for pumping water. Also geared windmills for cutting straw, roots and grinding grain for feed.

**Factory and Office, 637 Craig Street, MONTREAL.**



The above cut shows our Double Acting Brass-Lined Horizontal Suction and Force Pump, mounted on a Cast Iron Bed Plate with tight and loose pulleys, 4 inch face, 18 inch diameter. This is one of the most compact and powerful pumps of the kind yet out, with Bed 4 feet long and 2 feet 2 inches, where the pulleys are placed, all being in good proportion. The pump has a guide to the piston rod, and is driven by the connection rod attached to the disc with steel pin and wrought iron connections. The valve seats and valve are made of gun metal, and easily got at by bolts on either side of the pump, so that access to the bottom or top valve can be had without any difficulty. We make two sizes of these pumps, which are adapted for mills, factories or tanneries. We make these pumps with a clutch to drive them direct, when so ordered, and dispose of the pulleys and belt. All enquiries will be promptly answered, by addressing the above, and catalogues of our pumps sent out. 3ML5.

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## KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

**Manufactured by HUGH GIBSON, CHATHAM.** EXCELSIOR DOG.


### A Safe Business.

"Father," he said, as he looked up from the paper, "there were 348 commercial failures last week."

"No?"

"That's what the papers say."

"Great Scott!"

There was silence for the next five minutes, and then the old man knocked the ashes from his pipe and remarked:

"Three hundred and forty-eight, eh! Jist exactly what I counted on when I stopped you from going into the mercantile business and put you into a saw mill. A saw mill is sunthin' that can't fail once in fifty years, and when it does the law gives you the mill dam, and ye can steal all the saws from the creditors."—*Wall treet News.*

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If you have catarrh use the surest remedy—Dr. Sage's.

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(LIMITED,)

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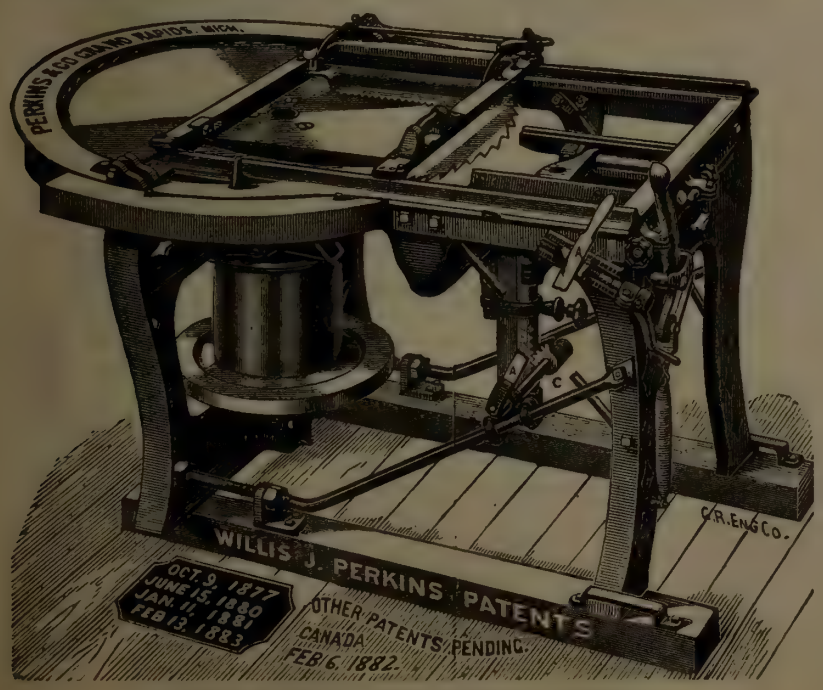
***of the Best Material and workmanship.***

We wish again to call the attention of our Canadian Lumbermen to our First Class IMPROVED SAW MILL MACHINERY, Heavy and Light Circular Mills; our Pat. Twin Circular, with Steam Rack or Rope Feed for Slabbing; Iron Oscillating Gang Mills of the most improved designs; besides our Patent Improved Long Cylinder Steam Feed. We would call attention to Cunningham's Oscillating Twin Engines for Feeding Long Carriages with Rack or Rope; our Patent Wrought Iron Jack Chain with Short Trucks; Heavy Wrought Iron Refuse and Sawdust Chains: Trimmers and Slab Cutting Tables; Lath Mills and Bolters; Lumber Markers; Trout's Patent Automatic Log Counter, to count the Logs as they come into the mill; Covel's Patent Saw Sharpener; Saw Swages and Improved Bench for Dressing and Hammering Saws; Perkins' Patent Shingle Mills; Bolters; Sappers; Jointers; Drag Saws; and Packers. We also forge a very superior ANCHOR for Lumbermen.

We are now introducing to those requiring Small Mills our IMPROVED SEMI-PORTABLE MILL, got up strong and durable, and are now adding to the many Machines for cutting Lumber. MILNE'S IMPROVED HEAVY BAND SAW for cutting Lumber out of large logs. The small carfe these Mills take out in using a No. 18 Gauge Blade, is a very important point in saving Lumber, besides the small amount of power required to drive it, making it a favourite in sawing lumber—capacity from 25 to 30 thousand per day.

We are prepared to submit plans and specifications, together with any information our many years of close application to the Saw Mill Business may have suggested to us; also when required to enter into contract for supplying the machinery and all material complete.

Communication from anyone intending to build Saw Mills solicited.



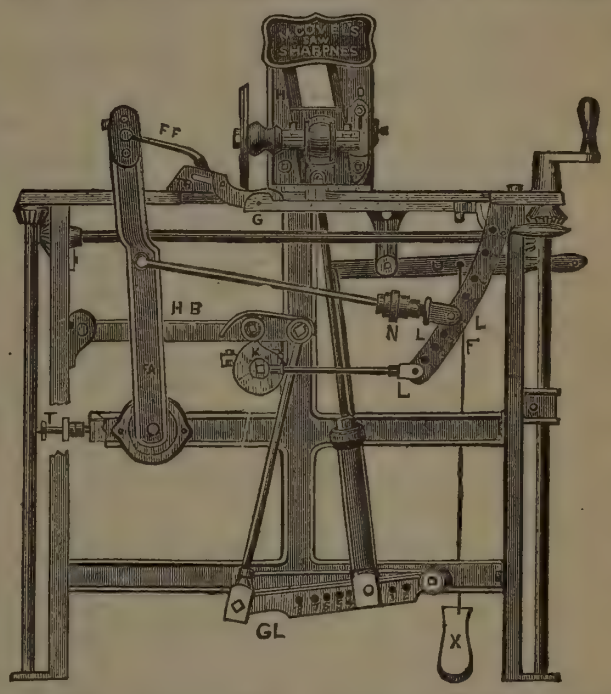

GRAND TRIUMPH!

## WILLIS J. PERKIN'S DROP TILT

The only Horizontal Saw Machine on which a thick slab can be cut from the bolt. SECOND CUT ALWAYS A SHINGLE. Knots, rots, hearts, bolt squared rift-ways, and all irregularities cut off at one clip. This improvement will pay price of the whole machineevery season by increase of quality and quantity cut,

## OUR SPRING STOCK OF

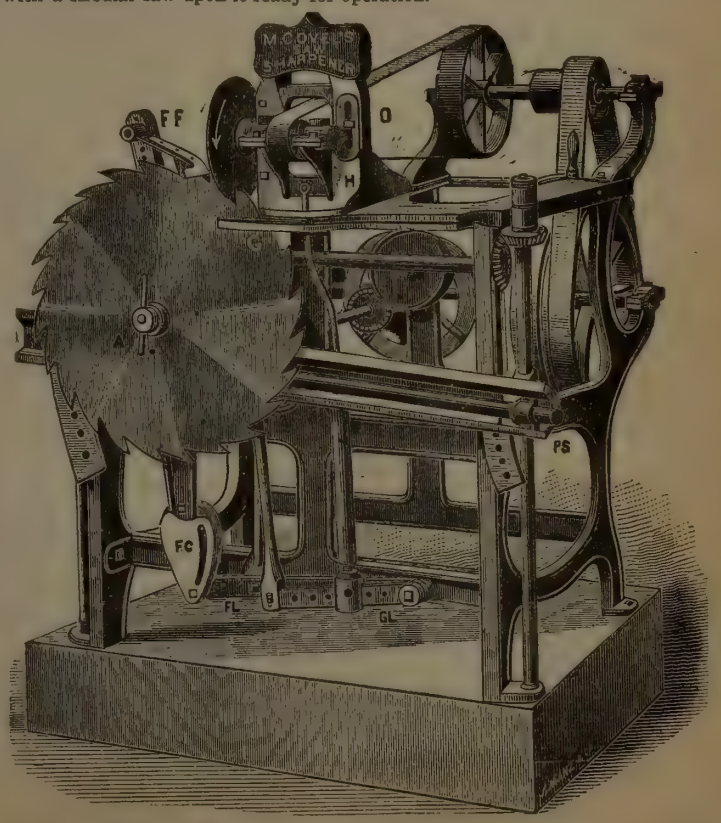
## The M. Covel Patent SAW SHARPENER




## IS NOW READY FOR SHIPMENT.

***They are now so well-known to the Lumberman, that their utility requires no comment.***

The above Cut No. 1 shows some very important changes that have lately been made, which makes the machine far less complicated for new beginners to operate. Cut No. 2 shows this machine with a circular saw upon it ready for operation.




## The Wm. Hamilton Manufacturing Co., Peterborough, Ont., Sole Manufacturers and Agents for the Dominion.

☞ SEND FOR PRICE LIST AND CIRCULAR.

## CANADIAN WOODS USED IN MANUFACTURE.

From Mr. R. W. Phipps' "Forestry Report," we take the following statement from leading manufacturing firms of Ontario, which will give an excellent idea of the valuable purposes served by our Canadian woods. The frequent allusions made in these letters to the rapidly approaching or even the present scarcity of which the writers speak, may do something towards inducing those of our farmers who still possess some portions of woodland, to preserve it in forest rather than give it over to the rapid destruction of the axe, or the slower but in time equally destructive method of allowing free entrance to cattle. A passage in one of these letters is particularly suggestive, where one of the writers remarks, "that a farm covered with second growth hickory from six inches upwards, would be as valuable as some whole townships that are now struggling under crops."

The following is from a prominent agricultural implement manufacturing company in Toronto :—

We use annually about a million feet of the following kinds of lumber, all of which is used in the construction of reapers, mowers, self-binding harvesters and horse hay rakes :

White ash, principally from the counties of Kent, Essex and Elgin.

Red oak, principally from the counties of Essex, Grey and Bruce.

Hickory, principally from the counties of Lambton, Kent and Essex.

Hard maple, principally from the counties of Grey and Bruce, but some from all counties west of Toronto.

Rock elm, some from all counties west of Toronto.

Basswood, " " " " " Toronto.

Pine (for boxes, &c.) usually brought from city dealers, but presumed comes mostly from the northern counties.

We use some second growth hickory. Sizes preferred for this are butts six to nine inches in diameter. We cannot say anything as to age. We do not use any foreign woods, and could suggest none that is more suitable for our work than native timber.

Speaking of woods used for particular portions, where strength is needed as for frame binders, etc., we use ash or maple; spokes, hickory or oak; for large broad ones white ash; for parts of binders, etc., where lightness and no great strength is needed, basswood and pine; horse-rake axles, maple; posts, ash; double trees and whiffletrees, hickory; tongues and neck-yokes, white ash; felloes, generally rock elm.

From a steam-bending factory at Norwood :—

We use in our business here about 3,000 logs of rock elm, and 1,000 logs white and black oak, yearly, size from nine to twenty-four inches; we also use second growth elm for buggy and carriage hubs, about 18,000 feet per year, ranging in size from four to ten inches; also about 500 logs of water elm, average size eighteen inches.

Rock elm we use for cutter runners, binders and shafts; oak for sleigh runners and waggon hubs; second growth elm for carriage and buggy hubs; water or soft elm for cutter reaves, arm pieces and toboggans.

The following is from an extensive planing mill in Toronto :—

We obtain timber from :—Pine, from northern shore of Lake Huron; white oak, from Amherstburg; red oak, from Oro, Tiny, Tay and Vespra; butternut, a little from Western Ontario; cherry from Grey and Bruce; white ash, from the same section on the C. S. R. R., as white oak; black ash from almost all points excepting Muskoka, especially where best red oak is to be got; cedar, best from Northern R. R.; hemlock, large quantities from vicinity of Barrie; birch, largest quantities come from the same points as the cherry; soft elm, chiefly obtainable from same sections as the cedar; rock elm from sections where birch is obtainable; red cedar, from Florida; not cut in Canada, but can be procured on Georgian Bay Islands. We use white oak for door sills, chancels, pews, pulpits, in fact, all ornamental church work. It would be of much more general use but for its scarcity. Much that has come lately into market as white oak, is but a kind of grey of inferior quality. White and black ash, and chestnut, for wainscotting, architraves and general internal finishing of first-class houses. Cedar, great quantities used as scantling, where there is a danger of rotting, and for lining of wardrobes. Red oak, church and other doors. Cherry, walnut and butternut, largely used in bank and office fittings, also in finely finished houses for doors, blinds, wainscotting, etc. Birch is superseding cherry for bannisters, newels, rails and office fixtures.

The next is from a large agricultural implement firm at Oshawa :—

In our business we use white pine, some basswood, maple, oak, ash and rock elm.

So far they have all been of Canadian growth; cannot say whether any of them are second growth or not. We do not use any timber of foreign growth, but buy, exclusively, Canadian timber.

From a similar firm in Brampton :—

The kind of woods we use is all of Canadian growth, white pine, which of late years we have procured from the north, from Georgian Bay east to Midland; white oak and red oak from the county of Peel west to Windsor; white ash and hickory in the same territory; basswood and rock elm from the county of Peel north, mostly of original growth. The kind of work the above timber is used for is the manufacture of agricultural implements, viz.: threshing machines, reapers, mowers, hay rakes, straw cutters, etc. The size of timber generally used for these purposes will range from one to three feet in diameter. I omitted to mention hard maple, which we procure from all points of the compass. We also use some black birch, which we get from the northern part of Ontario, from the county of Peel to Georgian Bay. I may say we use no foreign woods.

From another of the same class at Patterson, Ont :—

We beg to say that white and yellow oak, white ash, hard maple, rock elm, basswood, and pine are the principal varieties. These are natives and are getting scarce in this vicinity. We now find it necessary to reach out to those sections of the Province traversed by the Canada Southern, Grand Trunk, Hamilton and Northwestern and Northern railways for our supplies.

Wood taken from medium sized trees preferred. Second growth is difficult to get. In ash it commands a high price.

All kinds of hardwood are becoming scarce, and in a few years, at the present rate of consumption, will have to be obtained from without the Province. In fact we are even now trying to substitute wrought iron and steel in many parts of our machines, for wood.

From a well known carriage work firm at Gananoque :—

It is with great difficulty that we get such timber as we require. We use a quantity of oak, hickory—(second growth; when we can get it, should use nothing but second growth), ash —(second growth);—basswood and whitewood. Our basswood we get locally, also oak, but hickory is from Ohio, and some from western Canada. Whitewood from the States; ash, some local and some from the west. The second growth hickory could be grown profitably, I think, in this country. Can be used from trees from six inches diameter. It is worth about $100 per thousand in the plank. A farm covered with second growth hickory from six inches up would be as valuable as some whole townships that are now struggling under crops.

From a leading car company at London :—

In ordinary car building the principal woods used are oak, ash, chestnut, walnut, whitewood, Southern pine, Norway or red pine and white pine, but in the fine coaches mahogany and other fancy woods are now being used. Oak, both white and red, are Canadian timber; grows in all parts of Ontario. I think the bulk of growing oak at the present time is in the county of Essex and adjoining counties. Ash, both white and black, more or less all through Ontario; walnut, very little good left, grows chiefly in the countries bordering Lake Erie, but is now imported from Indiana. Whitewood very scarce now and is imported chiefly from the United States. Norway or red pine grows chiefly in Northern Ontario; great quantities having been cut in the neighborhood of Stayner, Angus, Elmvale, and other place. White pine grows in the Georgian Bay district, the Ottawa district and Muskoka. Canada is almost clear of walnut, and nothing would pay farmers better than growing walnut trees.

As regard the general use of woods in car building, white oak in box cars is used as sills and stringers, that is the two outsides, and two centre pieces, are oak, and two intermediates are red or Norway pine, forming the foundation or bottom of the car lengthwise. Oak is also used in the framework of car bodies, as studs, braces and rafters, or top frame of car. The woodwork of car trucks is made of oak. White ash is used principally in passenger and street cars. It is used in making doors, rafters and some of the lighter work of the car. Whitewood is used chiefly in passenger and street cars as outside panels and some of the lighter furnishings. Bird's-eye maple and walnut are used as inside panels, mouldings, and inside finishing generally. Southern pine is used as longitudinals in passenger cars, taking the place of oak. The body of box cars is covered, or sheeted, with the best quality of white pine; the flooring is composed generally of Norway pine. The floorings of passenger cars are generally made of oak or Southern pine. Everything in car building has to be well finished, closely and firmly put together. I may say that cherry, chestnut and butternut are sometimes used in cars, taking the place of walnut, as they are not so expensive, and will give a good appearance to the inside of a car.

The following is from a leading carriage factory in Toronto. It is especially valuable as showing the sizes of wood required, and the time of cutting it :—

Forest ash is the wood generally used in the construction of carriage bodies, and should be cut in planks varying in thickness from one and a quarter to five inches; that is to say, 1¼, 1½, 2 in. 2¼, 2½, 3 in. 3½, 4 in. 4½, 5 in. Very little of the last mentioned size is used. For carriage gears and poles a second growth or a first-class quality of white ash is used, and is required in planks 1½, 2, 2½ and 3 inches thick. Second growth and forest hickory are also used in parts of carriages and waggons. This lumber is found most convenient when cut 1¼, 1½ and 2 in. Forest hickory is sometimes required as large as 2¼ and 2½ inches thick. Oak and rock elm are used in buggy and waggon shops. Oak is seldom called for less in thickness than two inches, and very often required four inches thick. Elm 1, 1¼, 2½ and 2 inches. All the above mentioned timbers should not be cut down earlier in the fall than the first of November, and not later than the latter part of January. The logs should be taken to a mill and cut up as early as possible after the trees are cut down.

Basswood and whitewood are the woods generally used for carriage body panels. The former should be cut in boards half and one inch thick; the latter is required in thickness from half inch up to three inches; half, one inch, two and three inches. It does not make much difference what season of the year the year the trees are cut down, but basswood especially should not be allowed to lie in the log longer than can be possibly avoided before being cut up into lumber.

From a well-known carriage builder in Markham township :—

Of the kinds of timber used in our line of business, first is the white oak, which is of original growth here, and is used for waggons, and cut from ten inches to two and three feet in diameter. Markham was once noted for good white oak, but it is getting culled out. There is quite a lot of red oak, but it is not so good for our purpose as white. It is porous and open grained, rotting soon. Next is second growth white ash. It is native here, makes good waggon tongues, is used in carriage building, and is cut from ten to twenty inches in diameter. Next is black ash. It is inferior to the white ash and is used chiefly in bodies for buggies and light work. It is cut here from 12 inches to two feet in diameter, and not worth so much per thousand feet as white ash is. Next is rock elm, which is a very useful wood with us here, being very tough. In answers well in waggon and carriagework. Next is hard maple, which is used chiefly in waggon axles. It is a very stiff wood, does not spring like hickory or ash, and is cut from eighteen inches to two feet in diameter. Next is basswood, a wood that grows here and is used in bodies for buggies and in waggon boxes. It is a very light wood, is cut from 12 inches to two feet in diameter, and is also used for flooring and sheeting in houses. Next in value in our trade is shell bark hickory. This wood we have to import. It is a very tough wood, is very valuable in our business, and is used in rims and shafts for buggies, light poles, etc. Next is birch and ironwood, which are used to some extent, but not so much as those mentioned above. In conclusion I might say all of the kinds of wood mentioned in this letter grow here in Markham township except the hickory, and I believe hickory would grow here as well as any other wood. I have twelve hard maples set out. They are growing splendidly. Not one died though it was prophesied they would, as people said they ought to have been soft maple. If the Government can throw out any inducement to get the farming community to plant out trees for future use, it would be a great boon to the country and community at large, as woods are getting scarce and dearer; so the sooner they commence planting out the better for all.

With the increasing wants of civilization, new uses for timber are being continually discovered. A few years ago elevators were as rare as they are now common. The following is from an elevator manufacturer in the city of Toronto :—

I use pine for framework and the ordinary sheeting in of the hoistways. The frame timber is better when cut from logs of sufficient size to allow of say eight by eight inch timbers being cut without the heart.

For the runners or slides I use black birch; that cut from large trees suits best for this purpose. White ash, oak, rock elm, and maple for the framework of cars and platforms. Second growth suits better for this purpose. For panelling I use maple, black walnut, cherry, butternut, chestnut, birch, white and black ash, white and red oak, and sometimes pine. Either growth will do for this work. All these woods, excepting black walnut, are common to all sections of these Provinces. The black walnut grows in Western Ontario.

The growth of the manufacture in all the branches of wooden wares has increased the value of hard timbers, so that instead of cutting it to waste, owners of the land will find it to their profit to take care of their timber.

Cherry and birch are becoming valuable timbers and will be, of all the Canadian woods, the most likely to take the place of the foreign.

*(To be Continued.)*

## THE FRENCH COLONIES.

The following items appear among the returns of Canadian exports to French Colonial possessions in 1884 :—

To St. Pierre and Miguelow: knees and futtocks for shipbuilding, $152; hemlock logs, 39,000 feet, $381; deals, 45 st. hd. $1,698; planks and joints, 1,471,000 feet, $14,114; scantling, $723; staves $3,102; masts and spars, $720; shingles $1,164; birch timber, $394; oak ditto, $641; red pine, $300; leached ashes, firewood, laths, palings and pickets.

To the French West Indies :—Shingles, $657; 2,728 bbls. valued at $1,379, besides some sawn lumber, masts and spars,

To the French possessions in Africa we exported deals and deal ends to the value of $32,289 from New Brunswick, likewise scantling to the value of $1,086.

THE various brick companies of Brewer, Me., last year consumed 3,000 cords of wood, at a cost of $10,000.

**How Pale You Are!**

is frequently the exclamation of one lady to another. The fact is not a pleasant one to have mention, but still the act may be a kindly one, for it sets the one addressed to thinking, apprises her of the fact that she is not in good health, and leads her to seek a reason therefor. Pallor is almost always attendant upon the first stages of consumption. The system is enfeebled, and the blood is impoverished. Dr. Pierce's "Golden Medical Discovery" will act as a tonic upon the system, will enrich the impoverished blood, and restore roses to the cheek.

# Chips.

It requires 50 cords of slabs a day to run the Canfield & Wheeler salt block, at Manistee.

E. Uhl shipped 90,000 feet of organ stuff from the Quimby mill, at South Boardman, Mich., in one week recently.

A Wright & Co. have just completed a new mill in Aral, Benzie county, Mich., and will soon begin to saw lumber for shipment.

Garland & Thompson, Portage la Prairie, Man., have formed a partnership in the sawmill business.

The Emerson, Man., saw mill will be operated this summer by Mr. James Carney of Carney & Watson.

James A. Root owns 3,000 acres of hardwood land in Lakefield, Mackinaw county, Mich., and will erect kilns and go into coal burning.

J. B. Watkins, of the North American Land & Timber Company, of Lake Charles, La., has a cypress root that is 160 feet long. He keeps it at his residence as a curiosity.

It is reported at Ontonagon, Mich, that Timothy Nester has sold out his interests in that county, consisting of pine lands, river frontage and townsite property. The purchaser is not named.

On March 13th a young man named James Manogue was killed while chopping in Otonabee, Peterborough County. A tree fell on him, fracturing his skull, and a knot penetrated into the brain. Death was instantaneous.

A despatch from Odessa, Ont., on March 19th says:—Mabee & Derbyshire's steam saw mill was totally destroyed by fire this morning. The damage is estimated at $3,000; insurance, $1,000. A heavy stock of logs are on hand.

Cherry is becoming scarce in northern New York, and the price has advanced. E. Laraway, of Crogan, is this year putting in and buying on the Oswegatchie 200,000 feet of cherry logs, which is considered a sizeable amount for that region.

Four dollars a thousand was recently asked for a small bunch of pine stumpage on the headwaters of Manistee river, at a point where the logs would have to be hauled three miles to water, and then it would be a considerable distance from Jam No. 1.

Dundas & Francis are contractors for deals in the Ashland, Wis., district. They have banked about 1,000,000 feet of logs for manufacture into deals. They will be shipped over the Wisconsin Central road to Ashland, there cut into lumber at Mueller & Ritchie's mill, and thence shipped to England by way of Quebec. The firm's contract is with McArthur Brothers, Quebec.

### Standard of a Safe Lubricating Oil.

The standard of a perfectly safe lubricating oil from spontaneous combustion is as follows: A mineral or paraffine oil so called, bearing fire test of 300° or more; an evaporation of five per cent. or less in twelve hours, and a constant heat of 140°; the greatest degree of fluidity consistent with keeping the oil upon the bearing. High-grade neats-foot oil is sometimes mixed with mineral oil, and so long as the oils remain thoroughly mixed, as much as 25 per cent of neats-foot oil may be safely used. But five recent cases of spontaneous combustion have called attention to a tendency in these oils to separate, so that the neats-foot oil has apparently been applied nearly free from mineral oil, and in such cases fire has ensued. Great care should therefore be taken that mixed oils are kept in safe condition by frequent agitation or stirring.

### G. M. D.

Walking down Broadway is very pleasant when you feel well, and T——K——never felt better than when his friend asked him how he got over that severe cough of his so speedily. "Ah, my Boy," said T——, "G. M. D. did it!" And his friend wondered what G. M. D. meant. He knew it did not mean a Good Many Doctors, for T——K——had tried a dozen in vain. "I have it," said he, just hitting the nail on the head, "you mean Dr. Pierce's 'Golden Medical Discovery,' or Gold Medal Deserved as my friend J——S——always dubs it." Sold by druggists.

Subscribe for the Canada Lumberman.


### Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhœa, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

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The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., APRIL 1, 1885.*


LOGS were lately selling on Puget Sound, W. T., at $7 a thousand.

F. M. THOMPSON & Co., Piper, Mich., have finished logging, with 7,000,000 feet of logs put in.

MCLEAN & DOUGLASS, operating near Summit, Mich., have put in 4,500,000 feet of logs this winter.

SMITH, COLLIS & BENNETT, Ludington, Mich., recently sold three cars of inch uppers to go to Valparaiso, Chilli.

THE N. W. C. & N. Co. saw mill at Fort McLeod, N. W. T., has been slightly damaged by fire.

A WRITER in the Chicago *Current* says that "there is only about 55,000,000,000 feet of pine in Canada." Wonder where he got the figures about which he speaks so positively?

THE ship Edward O'Brien lately sailed for Sydney, Australia, from Tacoma, taking 1,300,000 feet of lumber, which was said to be the largest cargo ever taken out of Puget Sound.

LOUIS BRANTNER, employed in Ryerson, Hills & Co.'s camp No. 3, on the Muskegon, Mich., was instantly killed by a limb that fell on his head as he was sawing down a tree.

THE steamer Beaver, 50 years old, the first steam vessel to run on the north Pacific coast, was lately inspected at Victoria, B. C., and pronounced to be in perfect order. Her engines were built by Watt & Co., in 1834, and are now marvels of strength, if not of beauty.

FRED RUSTA, employed at the works of the Grand Rapids Veneering Company, went into a steam box to examine some logs, and in some way the door, which is lifted by a weight, closed down and shut him in. The temperature stood at 200 degrees, and it is supposed that Rusta did not live more than two minutes. When his body was taken out it was literally cooked.

ISREAL MERRITT, of Middle Simonds, has cut this season 3,000,000 feet of spruce and 2,000 tons of birch on the Tobique river, New Brunswick. The weather there has been very favorable for the teamesters.

A LONDON firm of pencil makers manufactures its shavings and sawdust into an article which they call the "Dust of Lebanon." It is sprinkled upon the fire to remove the unpleasant smell of cooking noticeable in a room after a meal.

THE Onekema Lumber Company, at Onekema, near Manistee, Mich., has in 2,500,000 feet of hemlock logs and 800,000 feet of hardwood. Nine companies and firms have maple, cherry, white ash, elm, basswood and other hardwood lumber piled on dock, ranging in amount from 20,000 to 400,000 each.

THE Stirling *News-Argus* is responsible for the following:—Mr. Robert McKinnon, of Marmora, who is now on Black Creek, township of Cashel, on the 18th inst., drew 115 logs at one load. The logs on Mr. McKinnon's load averaged nine inches in diameter and thirteen and one-half feet long.

THE Rathbun Company, says the *Tribune*, are now receiving at Deseronto large quantities of logs from the back country. They are shipped over the Ontario Central and N. T. & Q. and thence by Grand Trunk and Bay of Quite railways to Deseronto. Nearly 200 car loads are expected to come in by this way before opening of navigation.

## CANADIAN FORESTS.

THE desire of those in Great Britain who are interested in the timber trade to become thoroughly acquainted with the extent, resources and particulars regarding the forest wealth of Canada is shown in many ways. And this is not surprising when we recollect how many commercial and industrial industries are dependent upon supplies of timber sent from this country. Early last year Dr. Lyons, M. P., made application to the Colonial Department to procure authentic information regarding the forests of Canada. By the kindness of the Colonial Secretary, Lord Derby, a letter presented by Dr. Lyons was forwarded to the Governor-General of Canada, who forwarded copies of the letter to the Lieutenant-Governors of the different Provinces. Special inquiries were instituted in each Province and competent officials were instructed to make a report. In the latter part of last year these reports were sent across the Atlantic, and in response to a requisition signed by various members of the English House of Commons the papers have been printed and issued as Parliamentary papers.

The reply from the Province of Prince Edward Island is very short. The substance of the Lieutenant-Governor's communication is: "I beg to state that there are now no forests of any extent in the Province of Prince Edward Island, where they have disappeared under the axes of the settler and the lumberman."

For Manitoba the Hon. A. A. C. La Reviere also makes a brief reply, pointing out that the timber of that Province is under the control of the Dominion Government, and adding:—"During the rapid construction of the main line of the Canadian Pacific Railway, during the year 1882 and 1883, large quantities of timber were used; but as the main line has now reached the Rocky Mountains, the progress of construction is necessarily slower, and much less timber is required, and the principal portion of it is obtained from those mountians. This Department has adopted means to prevent as much as possible the destruction of timber by fire, and is endeavoring to secure the rigid enforcement of the Prevention of Fire Act. Steps have also been taken for the establishment of an Arbor Day, on which the general planting of trees throughout the Province will be encouraged."

These were the earliest and shortest reports received. The others were fuller and gave more varied information, which, it is hoped will be of service to the industries dependent upon timber supplies, and also to the timber trade of this country.

## TORONTO LUMBER YARDS.

*To the Editor of the Canada Lumberman.*

DEAR SIR,—A letter signed by N. A. P. which appears in your issue of the 16th inst., calls for a reply. Your correspondent should remember that my remedy was for the benefit as I *conceive* of the retail dealer, and not the special interest of the wholesale man or manufacturer, or those in busiuess here occupying the dual position, and it is evident from the tenor of his letter that N. A. P. speaks mainly on behalf of the latter. First he asserts that not one of the retailers are overstocked, and yet millions of feet are piled in the railroad yards. Perhaps N. A. P. is not aware that a not inconsiderable portion of the millions piled as stated, belongs to retail dealers, who often buy cars of lumber for the sake of a portion of said car wanted by them at the time to fill some special order, and the remaining portion they do not require. Take, for instance, the following lengths and sizes, always scarce in our market, 2x4, 2x8, 2x10, also 2x6, 18 and 20 feet long. Now if a dealer sees a car on the track with only a fourth, or sixth, of the entire load of those sizes and lengths, he is often compelled to purchase in order to obtain that portion, although he may have already in stock more than he requires like the remaining portion of the load. The same remarks apply to 1 inch dressing; a surplus of coarse lumber is often purchased in order to obtain enough of the former. Then your correspondent jumps to the conclusion that this assorting yard must have access to the C. P. R. R. only, although he must have known when he penned that remark, such a yard could as easily be located, and in fact not easily otherwise, so as to give access from all the railroads entering our city. He also wants to know what I am going to do with all the lumber now in the railroad yards. Why sell it, of course, as soon as wanted. I fail to see how the fact of this assorting yard, if established, would increase the total yearly cut or the total quantity arriving in this city. It would be handled in better shape, that would be all the difference. There is really no reason that I can see why all the wholesale dealers doing business in this city should not have an interest in said yard, and have lumber handled in much better shape than is done at present. Then he asks if I propose to get the C. P. R. R. to bring in lumber from Ottawa, and from the French River, via Owen Sound. I merely answer to this question that I do not propose anything, I have merely thrown out suggestions which I have already heard commended by several dealers, and the routes and modes of transit mentioned by N. A. P. spring purely from his fertile imagination. Certain it is that I have not mentioned such as his words would imply. Lastly, I would say that I do not think that he need give himself any anxiety in regard to lumber rotting in the railroad yards, it will all find a market in due time, and he is kind enough to remark, in commencing his letter, that he would not like to deal with all that appears from my pen, I hope in the future he will deal with my letters in a spirit of fairness and accuracy.

Truly yours,
CORRESPONDENT.

Toronto, March 21st, 1885.

## OTTAWA NOTES.

A despatch from Ottawa on March 21st says: Reports from the upper Ottawa are the effect that a great curtailment has been made in log manufacture, which the ruling prices last year made imperative. The feeling is expressed that the square timber will meet with a ready market. The abundant snowfall made drawing much easier this season than has been the case for several years.

The *Citizen* of March 23rd says:—There is at present a great demand by lumber dealers for good hardwood, and the demand is likely to increase, as of late it has become customary to place hardwood floors in first class houses. There is also just now a considerable demand for good half-inch basswood stuff for the use of carriage builders.

The same paper on March 21st said:—The sale of the Hall timber limits at the Russell House yesterday afternoon attracted a very large number of capitalists from all parts of Canada and the United States. Mr. I. B. Tackaberry, the veteran auctioneer of Ottawa, conducted the sale, and the large amount realized for the property proves that he conducted it successfully. The bidding commenced at $150,000, and the competition continued quite lively until the third and last call was finally given, and Mr. James McLaren, president of the Bank of Ottawa, was declared the purchaser at $247,000.

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Mar. 10, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 925 F. St., N. W., Washington, D. C.:—

313,736.—Auger handle—W. A. Ives, New Haven, Conn.

313,839.—Lathe, wood turning—M. E. Tucker, Brandon, Vt.

313,536.—Log loader—D. J. Saltsman, Brewerton, Ala.

313,608.—Lumber boom—U. R. Nichols, New River, Tenn.

313,540.—Plane, bench—R. S. Sheldon, North Greenfield, Wis.

313,694.—Plane, Joiners—W. Tidgewell, Middletown, Conn.

313,531.—Saw mill headblock—H. C. Robb, San Jose, Cal.

313,557.—Saw set.—J. B. Tupper, Petaluma, Cal.

313,581.—Saw teeth, machine for dressing—H. Fairbrother, Conneault, Ohio.

313,586.—Wood splitting machine—D. A. Greene, New York, N. Y.

313,586.—Wood turning machine—M. E. Tucker, Brandon, Vt.

310,568.—Wood-working machinery, device conveying and precipitating dust arising from—(Re-issue)—D. D. Drummond, Chicago Ill.

PATENTS ISSUED MARCH 17.

313,943.—Bench dog—M. J. Kugler, Barnesville, Ohio.

314,058.—Bench hook—J. B. Sargent, New Haven, Conn.

314,124.—Boring machine, gang bit—E. B. Hayes, Big Rapids, Mich.

314,152.—Saw drag—F. A. Strong, Colebrook, Wis.

314,040.—Saw jointer—G. H. Mayer, Kansas City, Mo.

314,071.—Saw mill dog—W. H. Snyder, Waynesboro, Pa.

314,125.—(2 patents)—Stave dressing machine—J. B. Heverling, St. Louis, Mo.

313,885.—Planer presser roll—S. M. Richardson., Worcester, Mass.

## AN AUGER TO BORE A SQUARE HOLE.

The first and only auger ever manufactured that will bore a square hole, is now in the shops of the Cleveland Machine shops. This auger bores a two-inch square hole, the size used in ordinary frame buildings and barns, but they can be made on the same principle to bore square holes of any size. Its application is ordinary and works on the same principle as round hole augers. Its end, instead of having a screw or bit, has a cam motion which oscillates a cutter mounted on a steel rocking knife which cuts on both sides. In order to prevent the splintering of the wood, the ends of the cutter are provided with small semi-circular shaped saws which help in cutting out perfectly square corners. It is estimated that this new process will save the labor of three men who work with chisels, as one man conveniently cut a two-inch mortise in the same length of time in which he can bore a round hole. The invention is the work of a Wooster man who has given the subject years of patient thought.—*Chicago Journal of Commerce.*


**"I Love Her Better than Life."**

Well, then, why don't you do something to bring back the roses to her cheeks and the light to her eyes? Don't you see she is suffering from nervous debility, the result of female weakness? A bottle of Dr. Pierce's "Favorite Prescription" will brighten those pale cheeks and send new life through that wasting form. If you love her, take heed.

### BALANCE WHEEL ON SHAFTING.

What good will a balance wheel do on a long line of shafting? How can it give more power or make the machines run any better? It is all right on an engine to carry the crank over the centres, but on a long shaft with the motor at one end and the wheel at the other, where does the gain come in? This question of shafting, like that of belting and gearing, has its best working conditions. Belting is liable to slip when a heavy load is thrown upon it; gearing cannot slip; it must make the regular number of turns, give a tooth for every one it takes, but can vary in the rate of speed in the different parts of every turn; and so with shafting. One end of the long shaft must make as many turns as the other during the day, but they are not connected in a rigid manner. The power applied at one end to turn the shaft, and the load at the other, tends to hold it still, twists the shaft through a portion of a turn till the load is conveyed to the driver wheel, as shown in the amount of power or in the load to be overcome. Affect the amount of torsion in the shaft, and the result will be a variation in the rate of the speed of each end of the shaft as compared with each other. A machine that is subject to unequal strains must offer an unequal load on the shaft and cause an irregularity in speed. All that a fly wheel can do is to even up the load and bring a less variation in speed. Without the fly-wheel the shaft might be checked for an instant when a heavy load was thrown upon it, while the shaft at the driving end was still in motion, and gain a part of a turn in the same time when the load was thrown off. In weaving the loom should be driven with a constant speed, and a machine that will check the speed for an instant would be noticed by the weaver, if it should happen when the shuttle was about to be thrown from one box to the other, and the fly-wheel with its equalizing influence must keep the loom at work.—*Boston Journal of Commerce.*

### WHAT BECOMES OF OUR TIMBER.

There are very few people in this country, says the *Lumberman's Gazette*, who have not some conception of what becomes of the pine forests of the country which are being denuded so rapidly. The piles of lumber reared in almost every city, village and hamlet in the country, which are removed and replaced so often for building purposes, tell the tale of the denudation of the pine forests. But very few have any conception of the uses to which the hardwood timber is put, and rarely give it a passing thought. The Bongor, Maine, *Journal* throws considerable light on the latter question as follows:—There are 2,000 clothes pin factories in this country. Were it not for our forests of white birch, beech and other kinds of hardwoods, the world's wash day would be dark indeed, as nearly every clothes pin used in the world is made in the United States. There are some 200 factories in Ohio and Pennsylvania. Maine has several. One of these is at Strong, a thriving town under the shadow of Mount Blue. This mill is owned and operated by a firm who also turn out large quantities of croquet sets, base ball sets, ten-pins, staves, excelsior, and wooden articles of various descriptions too numerous to mention. The clothes pin is made of white birch, which is the best of all hardwoods in the lathe, but must be worked green or it roughs up. Two machines make the clothes-pin; one turns it and another saws the slot. Then ten bushels of pins are dumped together in a large drum, which is made to revolve rapidly; in this way the pins are rubbed against each other and polish themselves. There is a machine which turns out a complete clothes-pin, doing both the sawing and slotting, but this pin is straight and its prongs have no spring to them, while the prongs of the pin made by the two machines are concaved, and the pin is not so easily split. Croquet sets are turned out here with astonishing rapidity, by means of a variety of lathes. They are made of all kinds of hardwood. A maple bolt is chopped into round balls at the rate of 2,000 an hour by knives that shape the opposite hemispheres of two balls at once. One clip makes a ball, that is, half of one and half of another. By means of patterns and travelling knives, mallet heads and handles are made to a variety of shapes. The fashionable mallet the past season had a head twice as long as the old fashioned mallet and a handle about half as long. The mallet heads are subjected to the same shaking up and self-polishing in the drum that smoothes the clothes pins. The sets are decorated by machinery, the stakes, mallets, and balls being placed in a painter's lathe, and one revolution makes a stripe. As to base ball bats, the dealers fairly begged for them. The supply failed for some reason or other, and they could get their orders filled nowhere. Ash and willow make the favorite bats. Willow timber is not easily had, however, as the manufacturers of artificial legs manage to secure all the supply. There is nothing equal to willow for a wooden leg!

### MAPLE AND ELM.

Now that the tree planting season is upon us—according to the almanac, that is to say—the *Canadian* desires to make a suggestion to intending planters. Plant elm. The maple is a magnificent tree, and no patriotic Canadian would desire to overlook its many virtues; but, as a shade tree for a town, the elm so far outranks it that there really is no comparison between the two. The bark of the maple is especially attractive to animals, which gnaw it whenever opportunity offers, to the lasting injury of the tree; its habit of growth is to a close and bushy top; and its foliage is so dense that a street, thickly planted with maples, becomes a sort of tunnel, dark in summer twilight, and damp and mildewy in the gloomy days of autumn. The elm, on the contrary, has all the qualities of a perfect shade tree. It is of hardy habit, and as its rough and bitter bark offers no inducements to gnawing horses, it runs little risk of injury in its early years. Unlike the close and compact maple, the elm grows to a great height, throws out widespreading branches which in well grown trees will interlace with each other across an ordinary street; and its open habit of growth and the curious peculiarity that its leaves turn edgewise to the light, make of its foliage just the screen required to break the force of the summer sunshine, without shutting it out to the creation of an unhealthy dampness below. The difference between the two species is indicated by the contrasting facts that when a maple-shaded street in a Canadian town becomes a thoroughfare, it is taken for granted that the maple must go; whereas some of the business streets in Boston and other New England cities are lined with noble rows of century old elms, whose wide spreading arms tower above factory roofs and five story business blocks, and interlace midway of the thoroughfare in magnificent arcades, the pride of the citizens, and the envy of all comers. The maple is a splendid tree, and we are all patriotic Canadians. But when it comes to a question of shade trees, plant elms. —*Sarnia Canadian.*

Colds, fevers and inflammations broken up by Dr. Pierces Extract of Smart-Weed.

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L7

## AN AUSTRIAN SPECULATOR.

One of the most expert speculators in Vienna is a man named Heinrich Kuffler. Over ther however, they with brutal frankness call such men swindlers. Some of his late tricks are so good that even Jay Gould might take lessons from him. The Austrain speculator is fully up to Mr. Ward, on a smaller scale, however.

Not long since, Kuffler appeared in the office of a wealthy lumber dealer who owned an immense lumber yard in the heart of the city. At this time there was a perfect mania for building houses in Vienna, and available lots commanded fancy prices.

"I want to buy the land you have got your lumber yard on. I want to put up a big hotel on it," said Kuffler.

"I don't care to sell."

"But I have got to have it. It is the only suitable place in this part of the city. I'll give you half a million."

"I don't want to sell. I would not sell for a million."

"I will give you a million."

The lot was not worth a million, but as the merchant had his lumber on it, and was wealthy, he did not care to accept the offer.

"No, I would rather not."

"I'll give you a million and a quarter, and to show you that I am in earnest, I'll put up fifty thousand marks forfeit. I must have a big lot on which to put up my new hotel," said he placing that amount in thousand mark notes on the table.

The poor lumber dealer became nervous and excited. Great beads of perspiration stood on his brow. He asked for twenty-four hours to think about it. The trade was then concluded. The lumber was to be cleared away before two months. The fifty thousand marks forfeit were to be paid over at the end of a week. The lumber dealer was satisfied on that point. He knew Kuffler had the money.

The lumber man then went to hunt for another lumber yard. Suitable vacant lots were extremely scarce. A land agent, however, who had heard that the lumber dealer was looking for a lot, offered him one for six hundred thousand marks, but only gave him the refusal of it for twenty-four hours. He said he could get that amount from another party. In his anxiety to sell the place to Kuffler for a million and a quarter, the lumber merchant paid down six hundred thousand francs to the agent.

Next day Kuffler notified the lumber dealer that he would pay over the fifty thousand marks forfeit as he was unable to raise the million and a quarter, the purchase money for his lot.

With the aid of a skilful agent, the speculator had sold to the lumber merchant for six hundred thousand marks a lot only worth four hundred marks, thereby profiting, after paying the fifty thousand marks forfeit, a cool 150,000 marks.

The lumber merchant has now two lots on his hands, and is also in possession of considerable experience.—*Siftings.*

## RENDING WOOD.

There is no machine that can divide a piece of wood into any number of parts by following the grain from one end of the stock to the other in all the curves and crooks that are found in rending. For straight grained stock the saw answers every purpose with a great saving in lumber, time and labor, but there are places and requirements where the stock is to be rived out, that every part of the work may be of equal strength and like tenacity throughout. This rending process, or the trade of the rail splitter, is one that requires the extremist skill on the part of the render. The lath splitter will seize a log of wood, however straight or crooked, and divide it in halves through its central line, guiding the crack and keeping the rend in the centre of the stock by the manner of applying the splitting force of the wedge.

The instant the split leaves the central line, or one-half of the log or the other is weakened, the deflection is the greatest in the weakest place, and the result will be that if the rend were to continue the splitting would cleave to one side, and the halves be unequally divided; but the render is on the lookout for this, and can tell in an instant when the split leaves the central division, however winding the log may be, and assists the weakening side by slightly bending the other till the divided work has been thickened and the rend continues on the centre. The halves are divided in like manner till the stock is divided into eighths by radial divisions, when the circular wedge-shape section is ready to be divided crossways following the annular grains or fibre-ring that forms about the heart of the wood, and again the radial division applied till the log has been rived into the fineness required. The curve of bending flexure of the divisions by which the line of cleavage is directed is a principle that is brought about by the skill in handling the wedge, or whatever tool is used in splitting. If the knife is forced around to bring the spreading force with a larger leverage on one side than on the other, the strength of the shorter half will be better prepared to resist the action of bending than the other, and the work will have a tendency to cleave to the thickened side if the rend has not departed too far from its central course; if so, the work will need assistance in the way of springing the stock into the position that will allow the split to rectify itself.

It is skill and practice in the correct principles of rending wood that brings the division of stock with the grain into equal parts to a success, and not chance cracks or good luck in splitting, or the placing the dividing edge or frow into the exact centre of cleavage. Why this splitting should be affected, or the course of the rend be changed in the slightest degree from the effect of bending the stock behind the work where the action is to be expected is a principle that must make use of the extension and distortion of the material it meets with in being deflected. If a beam is loaded at each end while it is supported in the middle, the upper layers will be extended while the lower fibres will be compressed; the tendency between every dividing line will be for one surface to slip upon the other, as may be observed in a built-up beam of thin boards before gluing, a tendency to crawl will be noticed from the support in the centre to places where the load is applied. This tendency to creep is sufficient to break the cohesion between the grains of wood. A piece of stock split for a few inches deep in two or more places sufficient to divide the stock into three or more equal parts, will, on being deflected, bring the shearing strain on every fiber in the stock; and since they have been weakened in the line of cleavage that has been made, the rend must continue at these places long before the remaining stock has been injured in the division of the grains, so by breaking the stock over a support, so as to cause the material to assume a sharp bend first to one side and then to the other, the line of division is conducted and forced through the stock and left in equal parts with the grain.—*Ex.*

## FILES.

Considered in the abstract, there is more real science connected with the use of a file than in in its manufacture, though all are willing to accord to the progressive makers the praise due the improvements of this very important workman's tool during the past few years. To properly use a file is apt to be considered a system of education beneath the dignity of the smart apprentice; in fact, it is rarely, if ever, that the apprentice is instructed in the use of the file at all, save to be able to draw the tool smoothly accross the article to be filed, regardless of the care of the tool itself; indeed, we question very much if in a large shop there are many artizans who know how to preserve as well as use the file, the principal idea being to get a certain amount of work done, regardless of the wear, often needless, to a great degree, of the tool.

If we take the trouble to examine carefully the make-up of a file, it would be noticed that it is among the impossibilities to so temper a bit of steel, that after the same has been subjected to the treatment necessary to make the rough edges or "teeth," the temper will be the same throughout, hence if we wear it more in one place than another, it will soon refuse to do even work. Again, in drawing the file, when the tool is pushed from the operator, a certain proportion of the hard tempered metal is turned toward the operator; now, if in backward motion, the file is allowed to bear on the substance to be filed, it is crowded forward in proportion to the amount of force applied, hence only a few strokes are needed to break off the outer or keenest edge of the tooth, whereas, if the file were not allowed to touch the substance being filed, the steel would continue to bend toward the operator, and would wear off smoothly, and so become uneven or jagged along the outer edge, which soon condemns a file for fine work. Then, again, these minute and evenly made furrows in the best made tools soon become, as it were, clogged by means of the small bits of worn off steel having the temper drawn by the heat generated by friction during the rapid, hard work. These little particles soon aggregate to that extent that the file is rendered impotent for nice, even work, as shown by the great amount of rough filing seen in any shop where apprentices are allowed to file away regardless of the results as affects a continuance of the useful life of the file. These are little things of themselves, but in the aggregate they amount to no small amount in the cost of manufacturing.—*Lumber Trade Journal.*

## WHAT WOOD TO USE FOR PATTERNS

In selecting wood for patterns (says a writer in the *American Machinist*) it is of the greatest importance to secure that which is most sure to hold its form and place, and which will not warp or shrink after being worked.

I believe selected and well-seasoned mahogany, or baywood, is more to be depended upon than any other. But this is too expensive to be generally used in large, bulky patterns, and most shops will only afford it for standard or delicate work. I would choose it rather than pine in thin work, where it is liable to split, and in patterns having sharp edges and corners, as the grain is not so free and straight. That best suited to patterns is quite soft and easy to work. But to go to the extreme in regard to nicking of corners and edges, and splitting of frail parts, a better choice can be made than to take mahogany.

For shelf brackets and other similar ornamental scroll-work, trimmings and fittings for children's carriages, &c., I have never tried any wood that answered the purpose so well as apple tree, but I would not dare to place it where there is dependence to be put on its holding its shape exactly after being worked to rule and straight edge. It has a tendency to twist and warp while being worked, which I will not attempt to explain; cutting away some portions of the grain leaves an unequal strain on others, thus drawing it out of its original shape. I have received satisfaction in using this wood in patterns having slight or frail projections and thin places, as it is very tough and will stand a great deal of bending and twisting before it will split; it is also more likely to pass through the hands of the moulder and come out whole. There should be pains taken in making a glue joint, for if put together with surfaces, as originally left by the plane, it will not amount to much. The surface should be well scratched with a scratch plane or tool. It is also difficult to nail or brad, as it is almost sure to split, or the nail to bend, without a hole is carefully made with the bradawl.

Another wood which makes a good substitute for mahogany and apple tree is cherry. In this, as is the case with mahogany, there is a wide difference in quality, and it should be well selected to get that which is suitable for patterns. What I consider best is that called here western cherry. It is lighter and of more free and straight grain, glues better, and is not so likely to warp as the native or eastern quality. A good quality of the western wood will not cost very much more than the best pine, whereas mahogany will cost three or four times as much. Patterns made of cherry stand wear and handling well, and are not so easily dented or battered by rough use and the thrust of the vent iron.

The varieties of wood already considered are practically adapted to only the most choice patterns. Ordinary work can be made of pine and serve the purpose better, it being lighter to handle, and in large patterns this point should be considered, for the lighter the pattern the better it can be handled in drawing from the mould. As a rule, too, the lighter wood is best for patterns in other respects. It is pretty sure to keep its place better than the hard, pitchy kind. It is easier and quicker to work, and, if you wish to get the weight of your casting in a rough way by the rule of pound of iron to ounce of pattern, the lightest wood will come nearest to the mark.

We accidently overheard the following dialogue on the street yesterday

*Jones*, Smith, why don't you stop that disgusting hawking and spitting?

*Smith*. How can I? You know I am a martyr to catarrh.

*J*. Do as I did. I had the disease in its worst form but I am well now.

*S*. What did you do for it?

*J*. I used Dr. Sage's Catarrh Remedy. It cured me and it will cure you.

*S*. I've heard of it, and by Jove I'll try it.

*J*. Do so. You'll find it at all the drug stores in town.

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y12

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Mar. 1st 1884 and 1885, and also the Consumption for the month of Feb. 1884 and 1885:—

| | *Stock, Mar. 1st 1884.* | *Stock, Mar. 1st. 1885.* | *Consumption for the month of Feb. 1884.* | *Consumption for the month of Feb. 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 399,000 ft. | 256,000 ft. | 53,000 ft. | 40,000 ft. |
| " Waney Board | 327,000 " | 319,000 " | | |
| St. John Pine | 33,000 " | 20,000 " | 2,000 " | 1,000 " |
| Other Ports Pine | 77,000 " | 58,000 " | 6,000 " | 4,000 " |
| Red Pine | 50,000 " | 42,000 " | 2,000 " | 4,000 " |
| Pitch Pine, hewn | 286,000 " | 560,000 " | 98,000 " | 62,000 " |
| " Sawn | 540,000 " | 491,000 " | 130,000 " | 140,000 " |
| Planks | 54,000 " | 59,000 " | 20,000 " | 3,000 " |
| Dantzic, &c., Fir | 117,000 " | 90,000 " | 10,000 " | 4,000 " |
| Sweden and Norway Fir | 120,000 " | 50,000 " | 6,000 " | 4,000 " |
| Oak, Canadian and American | 293,000 " | 203,000 " | 43,000 " | 27,000 " |
| " Planks | 183,000 " | 151,000 " | 82,000 " | 52,000 " |
| " Baltic | 13,000 " | 9,000 " | 0,000 " | 0,000 " |
| Elm | 13,000 " | 14,000 " | 1,000 " | 1,000 " |
| Ash | 28,000 " | 35,000 " | 0,000 " | 2,000 " |
| Birch | 80,000 " | 61,000 " | 20,000 " | 20,000 " |
| East India Teak | 70,000 " | 16,000 " | 22,000 " | 16,000 " |
| Greenheart | 109,000 " | 63,000 " | 13,000 " | 14,000 " |
| N. B. & N. S. Spruce Deals | 17,611 stds. | 24,284 stds. | 2,193 stds. | 1,846 stds. |
| " Pine | 1,986 " | 560 " | | |
| Quebec Pine & Spruce Deals | 3,054 " | 4,623 " | 769 " | 931 " |
| Baltic Red Deals, &c. | 4,639 " | 3,164 " | 231 " | 288 " |
| Baltic Boards | 60 " | 107 " | 31 " | 29 " |
| " prepared Flooring | 3,486 " | 3,032 " | 575 " | 516 " |

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OTTAWA, ONT.

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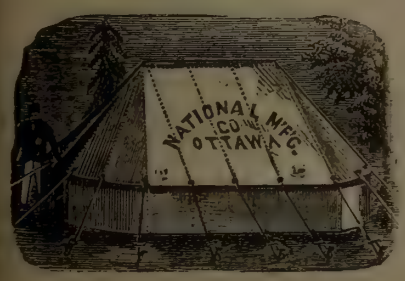


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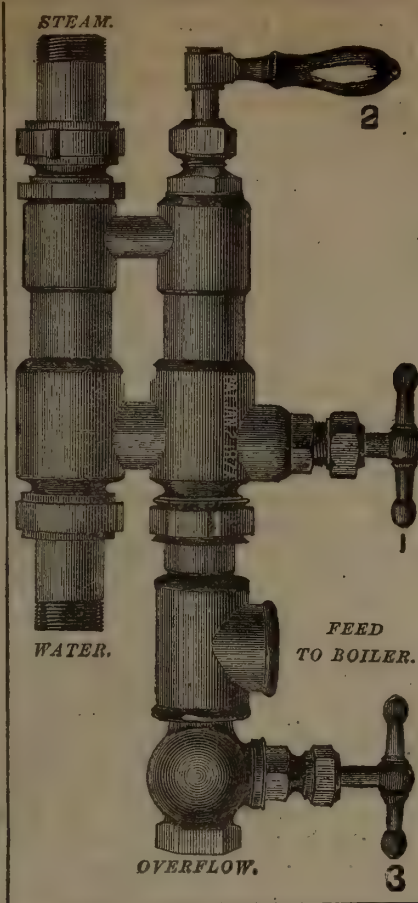


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**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

*ST. JOHN, N.B.*

☞**Samples and Price Lists sent by mail on application.** 12

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

Lumber is still dull of sale, the frost is so deep in the earth that builders will not start to do anything until a decided change of the weather takes place. All the mills, however, north of us that are running, have all they can do preparing bills for the spring work, and, in consequence of so few mills being in operation, bill stuff rules high, most of the manufacturers wanting $9.50 per M for bill lumber at mill 16 feet and under, this brings it up to $12.00 per M here, which is within about $1.00 per M of the prices quoted by some of the dealers for dry stuff from their yards, and it is generally thought by those in a position to judge, that bill lumber will rule 50% per M higher this season than last. There is no scantling or joisting piled in the railroad yards worth mentioning. The surplus stock consists of common and cull boards, strips and 2nd plank, with a considerable portion of hardwood piled at the various railroad yards, but in consequence of the small amount of dry lumber at the mills most of that piled off here will go before the season is far advanced. There is not the slightest fear that dry lumber will be left to rot, the demand will take it all before the new cut is in shape to use. Sales in the west are much brisker than here. A large number of cars are being shipped west, and orders are coming in rapidly, so that dealers feel satisfied that trade will open out all right as soon as the weather permits building operations to be actively pursued.

Basswood and maple will be in good demand this season, there is considerable call for 2 in. maple 12 in. wide and over, also 1½ in. same widths; No. 1 and 2 of the above widths will command $18 to $20 per M by car load here. Cherry and black ash will also sell readily, and at good figures for well inspected lumber. The former if cut into squares 6x6, 7x7 and 8x8, with hearts clean out, will bring $35 to $40 per M on car here. For black birch cut into squares —which often takes the place of cherry—if carefully cut and kept from twisting, remunerative prices can be obtained and ready purchasers found, but manufacturers must bear in mind that all squares, in order to be saleable, must have the hearts out, otherwise the wood when turned up checks so badly as to be entirely useless. If mill men would pay more attention to this matter, not only in cutting squares, but in heavy plank also, they would save loss to themselves and annoyance to purchasers, and customers would be more easily found. In reference to your inquiry as to hardwood you can quote No. 1 and 2 basswood at $15 on car here, maple 1 and 2, $15 to $16; red oak, 1 and 2—10 inch wide and over—$18, and white oak, same widths and quality, $24 to $25.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

| B. M. | |
|---|---|
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@16 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

MARCH 25.—The weather has been much against the lumber trade, and dealers are anxiously looking for an improvement, which ought now to be showing itself. They are, however, picking up a few orders, and, doubtless, very soon we will have more activity to report. We have no change to make in our price list and still quote ex yard as under:

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Bass, " " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 75@ 2 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

### CORDWOOD.

With the continued cold weather there has been a fairly active demand for wood at steady prices, in which not much change is looked for till the rivers and canals are clear of ice. We quote at the railway stations ex cartage:

| | |
|---|---|
| Long Maple | $ 6 00 |
| Long Birch | 5 50 |
| Long Beech | 5 00 |
| Tamarack | 4 50 |

### LIVERPOOL MARKETS.

Our advices this week quote the market for February as being quiet, but this is always looked for at this season. A number of contracts for Quebec wood goods have been entered into for spring business, the quotations for square timber being about the same as this time last year while those for pine deals show a considerable advance on last spring's prices. A cargo of St. John, N. B., spruce deals (yarded) was offered at auction, but only a few lots were sold. Stocks of all kinds of lumber in Liverpool are less than at the same period of 1884,

## WINNIPEG.

The *Commercial* of March 17th says:—The spring movement is begining to make itself felt in this trade, and already tenders are beginning to be asked for. As yet sales have been light, but there is every prospect of business opening up for the season before the close of the present season.

## CHICAGO.

### AT THE YARDS.

The *Northwestern Lumberman* of March 21st says:—"The Chicago lumber trade is right here, on deck, in spite of the croakers, and is going to stay," remarked a Twenty-second street dealer one day this week. The observation was made in response to the inquiry "how's trade?" and partly had reference to the late predictions that the lumber trade of Chicago had passed its zenith and was on a decline. The same dealer went on to say that since March 1st he had shipped as much lumber as he did during the three months previous to March 1st, and that the demand was steadily rising. One favorable indication he had to mention was that the railroad requirement was picking up. Within a few days he had filled a bill for 17 car loads of stuff to go to an Indiana car building concern. Another house not far off from the one mentioned reports heavier shipments for the month than during the same portion of March last year. Another yard, with extensive western connections, reports as much doing now as last year at this time. All state that the tide of demand is steadily rising. There are some, of course, that still complain of the slow progress that revival is making, but the fact remains that a greatly increased activity is everywhere visible in the district. That unmistakable evidence, loaded waggons clustering around the planing mills, and standing in long rows along Twenty-second street, is now unusually apparent. There is also a lively movement of lumber on wagons all over the district and city, which shows that there is an active sorting up between yards going on, as well as a heavy delivery of lumber to local builders. The carpenters' trade fully keeps pace with the demand for outside shipment.

While the dealers have reason to feel cheerful over the steady rise in demand, the question of prices is one that gives them some dissatisfaction. The revival of trade has developed a degree of weakness in prices that was not anticipated at the year's beginning, when there was so much talk about firmness, rock bottom, and no further decline. The long winter, with an unprecedented stagnation of trade, crippled by a February of unfavorable weather and little demand, caused many holders of lumber to be very anxious to sell as soon as there was the least opportunity. The result has been some weakness on the part of holders, and considerable shading between yards. It is positively asserted that a telephonic inquiry through the district develops a cutting of 25 cents to $3 a thousand on particular sorts, the amount of concession in each instance being determined by the quantity each yard has of the particular sort in pile. The condition seems to be this: If a yard has a heavy stock of any sort of lumber, the owners appear to think they must unload it, even at a sacrifice. A peculiarity of the thing is that it makes but little difference what the special sort is; if it is in excessive supply in a particular yard, it must be unloaded. This, of course, means a degree of weakness throughout the entire list. Perhaps an exception should be made in the matter of 12-inch, 12-foot common, and No. 2 boards, which all consider scarce. It is alleged, also, that 2x4 16-foot piece stuff is scarce, and that other sorts are much inquired for, but views differ in regard to the scarcity of specials. Houses that are buying a good deal for sorting up report plenty of dry lumber of nearly all sorts, and say "scalping is good." How far such weakness as is prevailing is affecting bills sold to the country it is impossible to say. But since heavy concessions are usually made, as between yards, on some particular sort of stock, it naturally follows that the process of evening up through a bill may not show a serious cut below list prices. Indeed it is asserted that when bills are made to the retail trade at large, prices are fairly uniform, and have not materially changed since the beginning of spring trade.

The stock on hand in the yards of this city on March 1st, as returned to the secretary of the Exchange, shows an excess over the previous year at a like date, of 81,068,426 feet of lumber, and a decrease of shingles amounting to 9,139,397. The aggregate stock decreased 31,859,400 during February in lumber, and 9,621,925 in shingles. Do the best the trade can throughout this month, the stock on hand April 1st will doubtless show an excess over a like date in 1884, though it need not necessarily be so much as to startle or discourage the trade, if shipments are continued all the month at the current rate.

Receipts of lumber, shingles, etc., from Jan. 1st to March 19th as reported from the Lumberman's Exchange:—

| RECEIPTS. | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 4,365,000 | 1,066,000 |
| 1884 | 4,879,000 | 1,026,000 |

FROM JANUARY JAN. 1, 1885, TO MAR. 19, 1885, INCLUSIVE.

| RECEIPTS. | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 34,688,000 | 8,969,000 |
| 1884 | 58,132,000 | 7,634,000 |
| Increase | | 1,335,000 |
| Decrease | 23,544,000 | |

STOCK ON HAND MAR. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 557,582,664 | 476,574,238 |
| Shingles | 324,267,100 | 333,406,497 |
| Lath | 50,674,480 | 48,006,454 |
| Pickets | 2,182,857 | 2,515,647 |
| Cedar posts | 259,199 | 239,742 |

FREIGHT RATES TO EASTERN POINTS.

In effect from Nov. 13th, 1884, to March 1st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

| Chicago to— | |
|---|---|
| New York and common points, per 100 pounds | 32c. |
| Albany | 29c. |
| Boston and common points | 37c. |
| Philadelphia | 30c. |
| Baltimore | 29c. |
| Washington | 29c. |
| Buffalo and Pittsburgh | 18½c. |
| Erie, Pa | 18½c. |
| Dunkirk, N. Y | 18½c. |
| Troy | 29c. |
| Shenectady | 29c. |
| Wheeling | 18½c. |

## BOSTON.

The *Journal of Commerce* of March 21st says: General business is moving along very fairly for the season, with quite an encouraging outlook for spring trade. White pine in desirable grades holds its own quite steadily. Orders for spruce have been quite good, and the mills are well employed for weeks ahead. Dry hemlock boards are quite scarce. Yellow pine, especially flooring, has been in fair request. In hardwoods there is a moderate business doing. Mahogany coming rapidly into fashion as the leading fancy wood of high cast for furniture and finishing. Walnut is quiet and steady. Whitewood moves along about as before.

### CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 21 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ¾-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ¾-inch | 30 00@32 00 |
| Ash, good, ℔ M | 40 00@48 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 80 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 50@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 00 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ℔ M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 30 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in quotations; weather very cold with no indications of a break. The demand is better on most all grades.

| | |
|---|---|
| Three uppers | $44 00@46 00 |
| Picking | 34 00@36 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@16 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 50 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

### CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LONDON.

The *Timber Trades Journal* of March 7th says:—The activity reported along the coast has not yet made itself felt in this market, and we can hear of very few cargo sales having been made to London merchants. The importance of the outport business, we consider, has been somewhat overrated as applying to this market, and the likelihood is that a considerable amount of the business reported to be done has been of a speculative character. Several important stocks are said to be sold out for the entire season, but who were the buyers?—that is the question.

There is certainly nothing unfavorable to prices advancing in the prospect of a war with

Russia, nor are the signs of activity in the War Department and the despatch of troops and war material up the Mediterranean, inimical to a busy season for the timber trade. Provided things are carried out on the usual scale of such undertakings, instead of in their present half-hearted way, by the time the first open water shipments are arriving we may see a firmer market, but this is all surmise. What we have to encounter now is dull trade and full stocks, which, while it lasts, must continue to have a lowering effect on prices. The London merchant will not import while he can secure what he wants on the spot at less than it would cost him to bring forward; hence it is that we find such palpable indifference regarding first open water transactions amongst the London men.

## LIVERPOOL.

The *Timber Trades Journal* says:—On Thursday, the 5th inst., Messrs. Duncan, Ewing & Co. offered the cargo of St. John, N. B., birch timber and spruce battens just arrived per Sunshine, from St. John's, N. B. The company present consisted principally of the local dealers, with some buyers from the country. The sale was slow and dragging, although there was a disposition shown to meet the market, and some lots were withdrawn. The prices realized were: 19 in. and upwards deep, 25½d.; 18 in. and under 19 in., 21d.; 17 in. and under 18 in., 18d.; 16 in. and under 17 in., 17d.; 15 in. and under 16 in., 15½d.; 14 in. and under 15 in., 15d.; spruce battens, £5 7s. 6d. The fine parcel of teak planks was withdrawn.

In the issue of March 17th the same paper says:—A moderate amount of contracting appears to be going on for Quebec timber and spruce deals, especially for the latter, round the coast at the various outports, but buyers are not inclined to respond to the advanced rates demanded by shippers. Should the freight market, however, exhibit any tendency upwards it will probably scare those who are hesitating now to act promptly and secure cheap cargoes whilst the opportunity exists, especially if the reports of a short supply of logs in Nova Scotia and New Brunswick should eventually prove to be well founded. At any rate, there is at present little cause to question the accuracy of the fact that advanced prices are being asked and obtained for deals at the mills in those districts.

## A HEALTHY TRADE.

Generally speaking the lumber manufacturing industry is not very profitable at present, nor has it been so for some time past. It may, therefore, be some consolation to those engaged in the trade to learn that, if not the most remunerative, it is apparently one of the healthiest vocations in modern civilized life.

Such, at least, is the reasonable inference to be drawn from the recently published mortality tables of the Connecticut Mutual Life Insurance Company. These tables show the ratio of mortality to occupation among over 90,000 males insured by the company during the thirty-two years ending December 31st, 1877, and likewise disclose the interesting fact that, in spite of rotten boilers, totally depraved circular saws, and those terrible germs of disease which a noted chemist has lately declared to exist in immense quantities in all sawdust, our saw and planing mill men, and other manipulators of lumber, are longer lived than any other class of men insured in this particular company, with the single exception of commercial travelers. In this respect the men "on the road" and the men in the mill are on an equality, while clergymen and editors are far in the rear.

It is generally supposed that regular habits, abstinence from intoxicating liquors, or dissipation of any kind—in short, that strict adherence to the highest moral and religious ideals, for which all journalists are noted—are conducive to longevity. Yet it seems that while the mill man gains a longer lease of life by strict adherence, as we are bound to believe, to the high standard just described, the equally virtuous journalist is not so fortunate. It is especially singular that he should fall behind the commercial traveller, a person who is, in the popular belief, usually adicted to rather free and easy ways of living, being often indeed credited with being as expert in "painting the town red" as in the exhibition and glorification of his samples.

We shall not attempt to explain this apparent anomaly, but will be content with simply congratulating the mill men on the fact that, from a sanitary point of view, his vocation is apparently excelled by none and equalled by only one.—*Saw Mill Gazette.*

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Feb. 1885, compared; and also for the two months ending Feb., 1884 and 1885, compared:

MONTH ENDED 28TH FEB. 1885.

| | Quantity. Loads. | Value. £. |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 66 | 620 |
| Sweden and Norway | 7,120 | 11,123 |
| Germany | 1,341 | 3,060 |
| United States | 5,124 | 19,508 |
| British India | 1,606 | 20,898 |
| British North America | 67 | 201 |
| Other Countries | 27,544 | 44,284 |
| Total | 42,868 | 99,689 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 1,917 | 3,651 |
| Sweden and Norway | 10,962 | 25,334 |
| British North America | 1,705 | 4,508 |
| Other Countries | 19,521 | 59,792 |
| Total | 34,105 | 93,285 |
| Staves, (all sizes) | 3,568 | 17,095 |
| Mahogany (tons) | 6,266 | 54,301 |
| Total of Hewn and Sawn | 76,973 | 192,974 |

TWO MONTHS ENDED 28TH FEB 1885.

| | | |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 3,309 | 7,312 |
| Sweden and Norway | 27,641 | 42,185 |
| Germany | 9,534 | 22,058 |
| United States | 11,270 | 40,971 |
| British India | 5,529 | 75,522 |
| British North America | 317 | 951 |
| Other Countries | 73,038 | 105,475 |
| Total | 130,638 | 294,474 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 5,499 | 10,763 |
| Sweden and Norway | 34,595 | 75,585 |
| British North America | 11,442 | 24,220 |
| Other Countries | 30,702 | 97,254 |
| Total | 82,238 | 207,822 |
| Staves (all sizes) | 6,606 | 36,526 |
| Mahogany (tons) | 13,017 | 113,241 |
| Total of Hewn and Sawn | 212,876 | 502,296 |

A NEW journal, *Timber*, devoted to the timber and kindred interests, has been established in London, England. Its appearance is neat, and it is evidently under careful management, and well posted in the requirements of the interests it is intended to serve.

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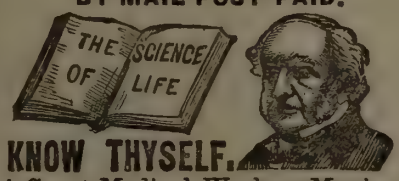


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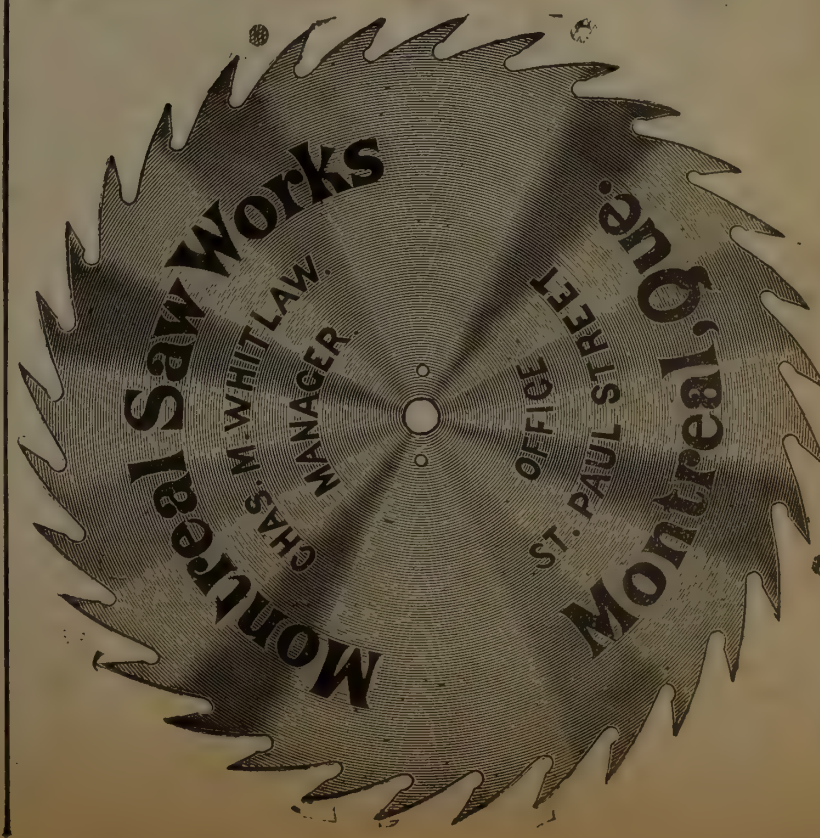


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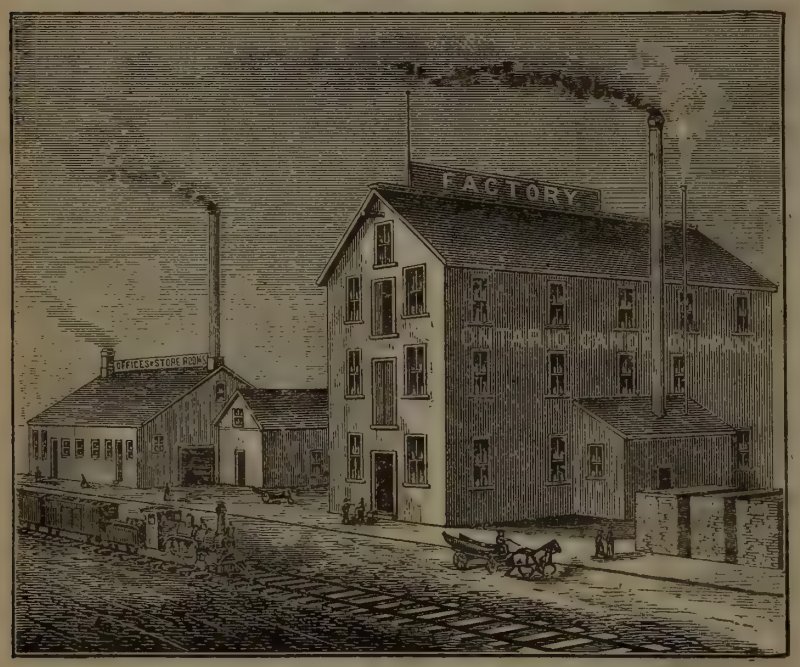


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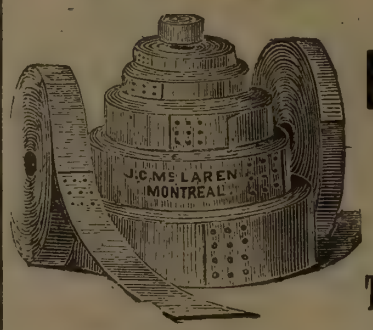


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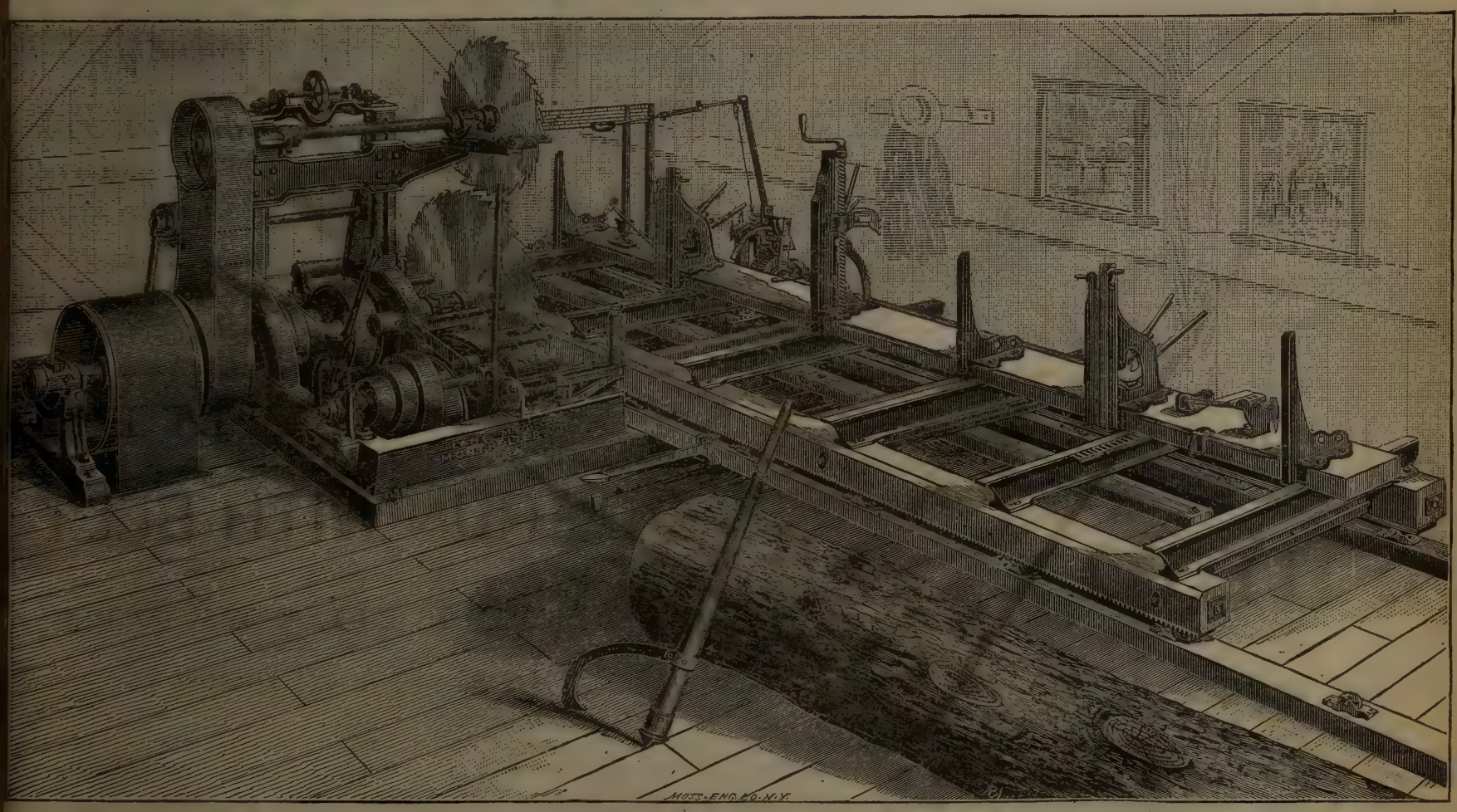

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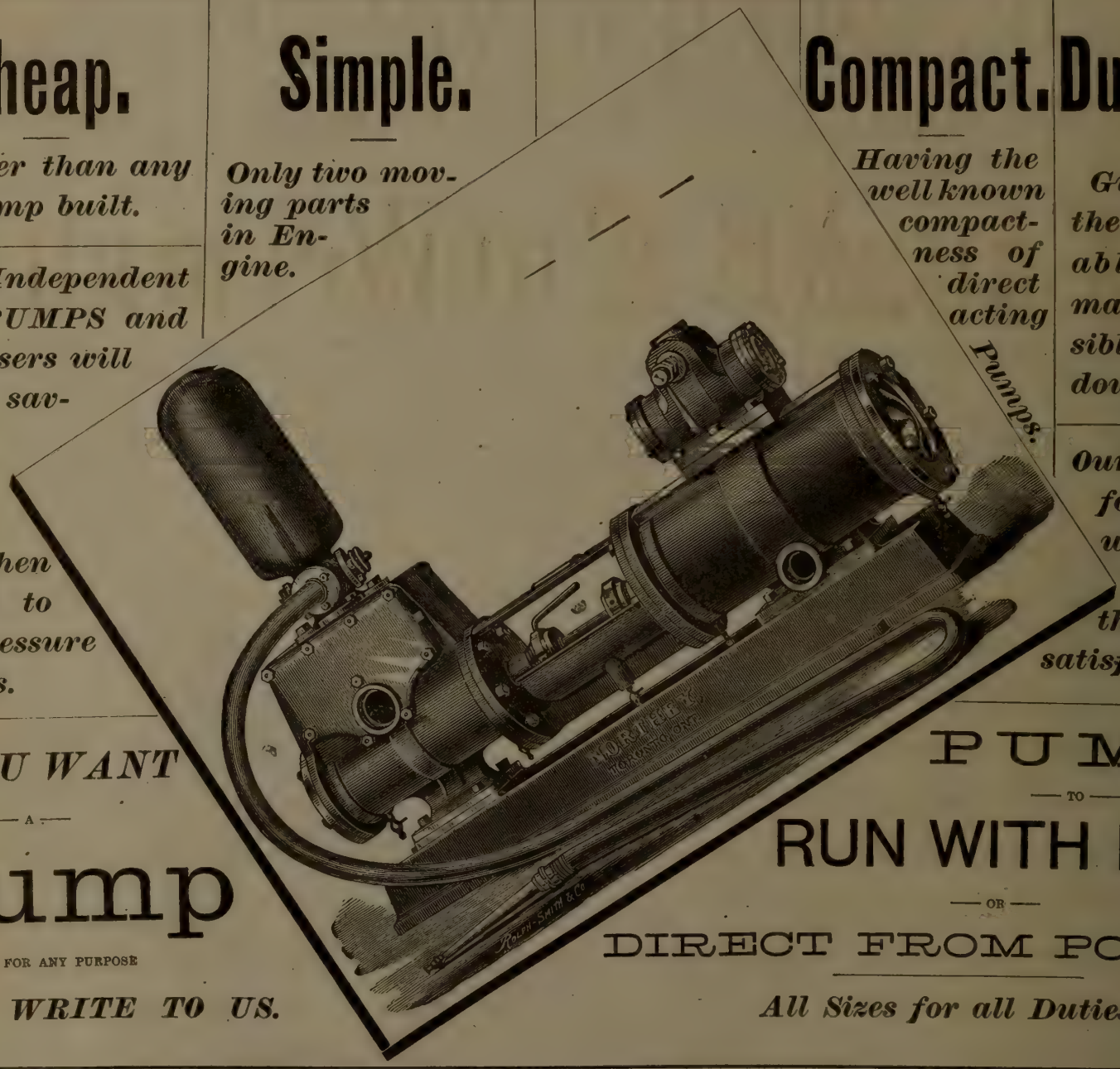


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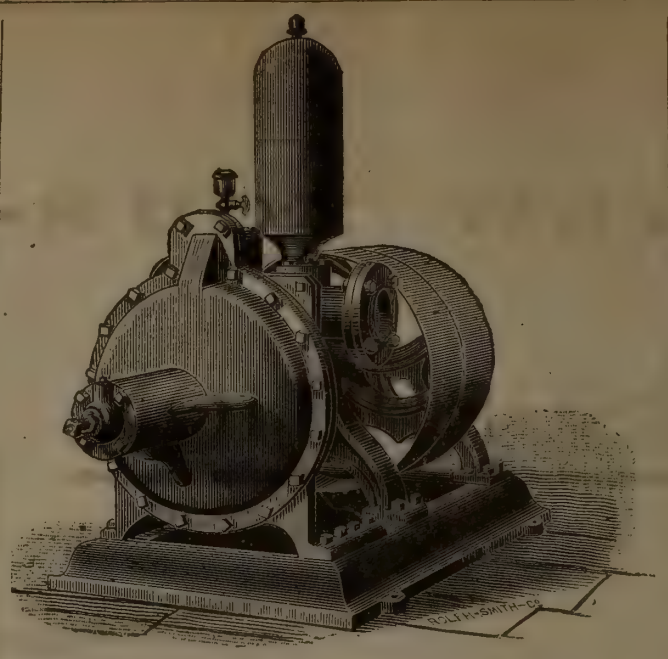

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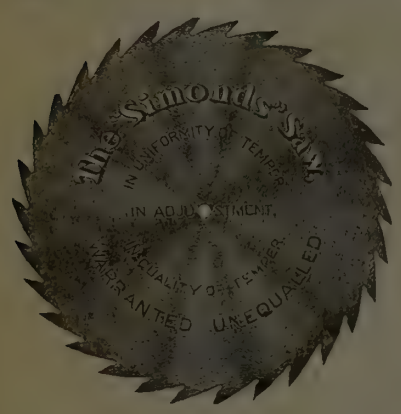


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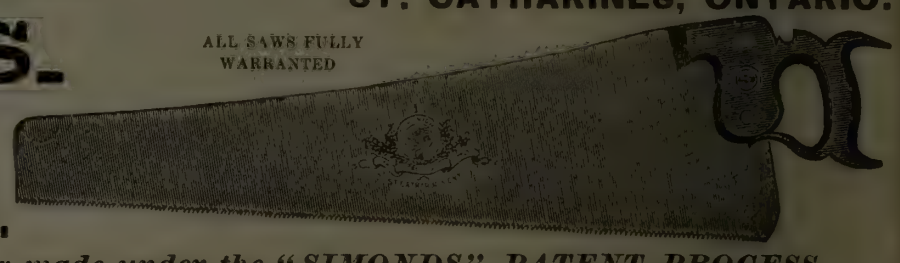


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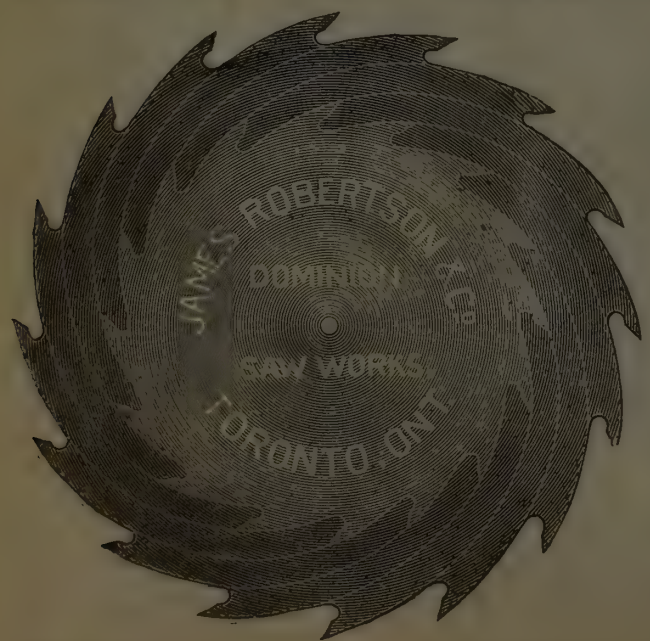


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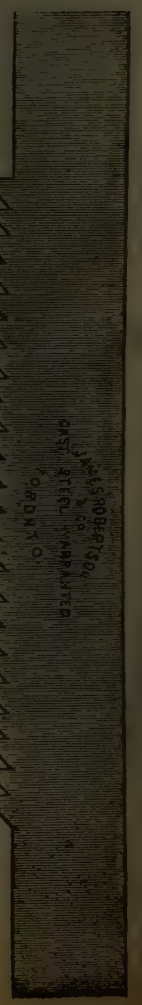

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AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

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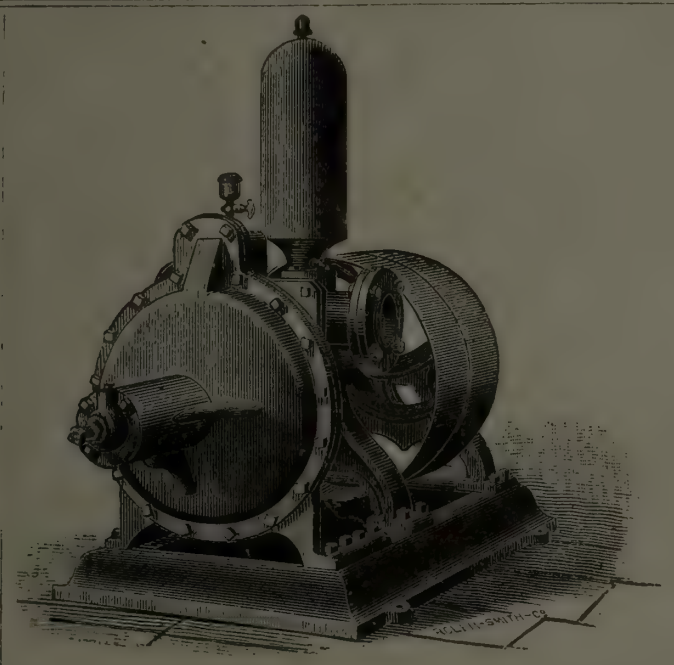
Central Iron Works

SIMCOE STREET

PETERBOROUGH, Ontario.

WM. H. LAW, PROP'R.



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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS' AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., APRIL 15, 1885. NO. 8.


## ON THE MANAGEMENT OF LOG BAND SAWS.

The first and most important point in the management of band saw mills is to have the saws in perfect order, and to have them in perfect order it is imperatively necessary for the man having charge of them to know what is needed to be done to them to put them in proper shape for running.

1. You must have a good, solid, steel-faced anvil, as is commonly used for hammering saws. Put up a bench the height to suit operator, with anvil in centre. You must have two hammers, one a cross pene, about 2½ pounds in weight, the other round-faced, with face a little oval, weight about two pounds; also a straight edge made of steel, one-eighth of an inch thick, five or six feet long, and about four inches wide in the centre, perfectly straight on one edge. Put the saw on the bench with the back next to you, and straighten the back of the saw perfectly straight, using round-faced hammers, hammering on back edge if the saw is hollowing, on teeth edge if rounding. Continue around the saw until it is perfectly straight.

2. Put the saw on the bench so the bottom side will be on the bench, and top side on the hangers above. Take a short straight-edge in the left hand and a piece of chalk in the right, or *vice versa*, as suits operator. Go to end of the bench where the saw bends up to the hanger: put the straight edge crossways of the saw, holding it so as you can see plainly; then move the saw around, always keeping the straight-edge on the bent part of the saw; observe closely, and where the saw is a little rounding, say one-sixteenth of an inch in width of four inch blade, that part is right; but where it is not, mark with chalk on the inside in such a way as you will know when you come to the mark in hammering. Be careful to mark so you will know where to hammer light. Go all the way around the saw in this way, marking where the saw is tight and where it is loose.

3. Take a cross pene hammer (be sure, first, to have it nice and smooth, and just a little rounding, so as not to cut the saw in hammering) and commence hammering at the weld or mark where you start, so you will know when you get around. Strike the saw with long way of hammer crossways of the saw, and be sure not to strike closer than one inch of either edge; hammer around the saw in this way, striking light and heavy or not at all, according as your chalk marks indicate, being sure to always strike with your hammer square crossways of saw, otherwise you might put a twist in the saw.

When you have got around the saw as described, change the saw, putting the side on the bench under it, and side on the hangers on the bench, first marking on the outside of the saw opposite to the mark on the inside so as to show where you hammered on the inside; then take a round faced hammer and go over the saw and hammer back where you hammered from the inside; after you have done this, take a short straight edge and a round faced hammer and go over the saw, taking out all bumps on both sides, always hammering the last time on the outside. When this is done, examine the back of the saw to see if you have made it crooked. If so, straighten it up, and then examine the tension wherever you straightened the back.

You will readily understand from the above what is intended, is to open up the saw in the centre, or in other words to make the saw long in the centre. When the saw is thus opened up nice and even and at the same time straight on the back, it is in perfect shape for running, so far as hammering is concerned; and I will say just here that that is the most important point in the management of band saws. Without this a band saw cannot be made to cut quantity and quality.

Filing is not the most important part, as I have said, yet it is necessary to have them filed well also. The more perfect you can keep them the more and better lumber you can cut. Consequently, I would recommend in all kinds of timber to swage about full, setting every other tooth right and left just a little, as to swage full and side file takes too much time. When the saw is swaged and set, I would recommend an automatic saw sharpener to do the sharpening, as that makes every tooth exactly alike and also of uniform length. The welding, as it is commonly called, though brazing is more proper, seems to bother a great many. My experience in that has been as trying as most men I guess, though of late I have no trouble whatever. I have tried brass, spelter and silver solder, with hot and cold tongs, cooling with water and letting them cool off themselves, with borax and muriatic acid. Some advocate the use of stencil brass on account of its cheapness, but my experience is that the heat does the saw more harm than the difference in cost of brass and silver, as it takes a white heat to melt brass while a live cherry red is sufficient for silver solder.

In brazing, first file ship lap on each end of saw, about three quarters of an inch long, and so as to fit perfectly together, and make the lap the same thickness as the rest of the saw; then clamp the saw in such a way as to hold it rigid on each side of lap, leaving room for tongs above and below; then cut a piece of sheet solder a little larger than the lap, put it on between the lap, and pour on chemically pure muriatic acid (use no other), use it freely, it doesn't cost much; have your tongs made five inches wide, and half inch thick. Be sure to have them true on the inside. After you have prepared the lap in the way described above, put your tongs in the forge and heat them to a live, cherry red, then take them and scrape up all dust from inside and apply them to the weld pinching them down well on both edges of saw with two pinch tongs, and hold them in that way until the red has all died out of the tongs, and then remove them, letting the saw stay as it is until cool; then put it on the bench, take a file and hammer and true it up so it will be like the rest of the saw, and your work is done. By following the above instructions closely you will keep your saws in proper shape for running right.

Then, in connection with this, it is necessary to have the mill in proper shape the receive the saws. To do that, put the wheels in perfect line with each other, tipping eech wheel just a little, so as to make the teeth edge of the saw a little the tightest. When the saws and mill are kept in perfect shape as I have described above, with a pushing sawyer, a band mill cuts in good logs any reasonable amount of lumber—say from 15,000 to 30,000 feet in ten hours, owing to the kind of timber.

My reason for writing this is, that I know the scarcity of experienced band saw men, and as we are selling quite a number of mills I take this plan of enlightening all who do not not thoroughly understand band saws. The handling of band saws is very tedious, yet very simple, when once understood properly.—*D. Hanson, in Southern Lumberman.*

## THE ELM TIMBER BUSINESS OF NORTHERN MICHIGAN.

Getting out and shipping elm timber is a growing industry in the Grand Traverse, Mich., region. The Grand Traverse *Herald*, which has been investigating the business, and collecting facts and figures concerning it, says:—

"This elm timber is found scattered through the other hardwoods, the maple, beech, etc., in some localities the elm of all varieties forming the principal growth, but in most cases ranking third or fourth, while in other localities but little is to be found. The buyer 'prospects' as he does for pine, with the difference that his object is to purchase the timber only, and not the land. In very rare cases the timber is bought to be delivered at point of shipment, the farmer receiving so much per thousand cubic feet delivered. The plan almost always adopted is to buy the timber in the tree at so much per tree, or in some cases by the thousand feet as scaled, the purchaser taking all there is upon a given track of land suitable for the purpose. The price varies from $1.00 to $1.50 per tree, depending upon the quality, locality, length of the haul, etc. The usual price is $1.25 per tree, or $30 per thousand cubic feet. A few years ago the going price was 75 cents to a dollar per tree. Only rock elm can be taken. Grey or soft elm, or other varieties often met with, cannot be made use of. A yield of 30 to 40 trees to a 50-acre lot of rock elm, of suitable size, is considered a good yield. Sometimes it is less and in some cases may be more, but the average is hardly up to the above, and this is found scattered with the other hardwoods named.

"After sale the farmer need have no further care or thought in the matter, unless he wishes to contract for cutting or hauling. The operator usually furnishes his own cutters and hewers, as this work requires experienced hands. Frequently, however, these are not to be found here. The length of the stick varies with the tree, and runs from about 20 feet for the shortest to 60 or 65 feet for the longest, sometimes, but not often a little longer than this. It may, if desirable, be squared with a slight taper, to measure not less than 9 or 10 inches at the top end. In such cases the measurement of the stick is taken in the centre.

"The timber so prepared is ready for removal and is hauled to the nearest place of shipment. If along the line of the railroad it is brought to Traverse City by rail. At this point it is piled on the banks of the river, below the depo bridge, and in June or July is rolled into the river, taken out into the bay and loaded into vessels prepared especially to receive such freight, the huge timbers being taken into the vessel through great port holes near the water line. The experiment of rafting has been tried, but several wrecks of valuable rafts in crossing Saginaw bay have made shippers cautious, and they generally prefer paying the large additional cost of freighting to the much cheaper but more risky mode of rafting. As $5,000 to $10,000 in a single season or even more may be saved in rafting, there is a strong temptation to shippers to adopt this plan. A vessel of 300,000 feet lumber capacity will carry 18,000 to 20,000 cubic feet of square elm timber. These vessels carry their cargoes to Kingston, Ont. There the timber is unloaded and made into large rafts, known as drams. These drams are about 50x200 feet in size, three logs deep. These drams are then run through the St. Lawrence river by 25 to 30 men to each dram, using oars. At Montreal the drams are taken in tow by steamers to Quebec, and there the timber is usually sold to dealers, or, in some cases, shipped to Europe direct by the operators. The ultimate destination is either Liverpool, Dublin or Glasgow, an occasional shipment going to some other port.

"Upon reaching its European destination the timber is carefully sawed, with scarcely any loss in sawdust, as every square inch saved is valuable. The lumber so made is put to various uses. Some of it is used in shipbuilding, and much of it is used in wagon shops and the like. The value of this timber in the European market is about $600 per thousand cubic feet."

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On April 3rd Fred Carroll, of Missouri, Ontario, had his leg broken by a tree falling on it while chopping in a bush. It was amputated below the knee.

## A DOWN HILL LOGGING ROAD.

FOOT OF PLANE, Pa., March 30.—Our logging road is different from anything I have ever before seen; it is a very cheap way for us to get our stock in. Our loads are all one way, and the only thing we have to be particular about is the brakes, which work on all eight wheels, and can slide them all at once, if necessary. We use two cars, which are drawn into the woods by one horse. The horse is started back at once in charge of a boy. With a man to each car, they load, make the run and unload by the time the horse can get back.

Our cars are not coupled except when going back empty. They are adjusted to suit the length of the logs, which vary from 12 to 40 feet, and sometimes longer. The brake on the front truck is operated by a small rope extending back to where the man stands to operate the rear brake. The axles are placed 24 inches apart from centres, which makes the sharp curves very easy. We never take into consideration curves, but put the road where we want it, regardless of the curves. We have two branches. On one of these we get motion enough to send the cars out on the main track; on the other we draw the cars up a grade of two feet to the 100 feet, a distance of 400 feet. To show what can be done with a road of this kind, last summer we had about 300,000 feet that had to be loaded at a certain place, or drawn considerable of a distance. We put a branch to the loading place, with a grade of 13¾ feet to the 100 feet, for 300 feet. We put wood rail on this heavy grade, but could not hold the cars when the rails were wet. We changed to a T rail, and had no more trouble in holding at any point, no matter whether the rails were wet or dry.

It seems to be a great convenience to be able to build a cheap road into these bad places on which to get out our logs.—*Minor & Parker, in Northwestern Lumberman.*

## DISAPPEARANCE OF PINE FORESTS.

The great groves of white pine which once constituted the glory and pride of Canada are narrowing their limits so rapidly that the final extermination of large trees is but a question of time. This is evidenced by the great value now placed upon the first qualities of this wood.

The log hauler is gradually extending his operations until he has reached the very head-waters of most of our rivers. In his track follows the settler, who, in consequence of the value of provisions which are grown in places where they can be hauled readily in winter to the lumbermen's camps, where they command high prices, clears a spot, perhaps alongside of some hay road, or on the banks of a river, where, among a vast quantity of bad land, he finds a little patch which will yield him some return. Here he erects his hut, cuts down the trees, and makes a clearing. The first settler is usually an old lumberman and is cautious about how and where he does his burning. When one man makes a settlement, however, others quickly follow. The latter, not being as cautious as the former, too often allow fires to extend from their clearings, and thus hundreds of thousands of acres, covered with the most valuable of pine groves, have been destroyed. Indeed, the thicker the growth of pine the more readily does the fire run, and consequently the more danger it causes. Early in the spring and late in the autumn are the periods when these fires are the most destructive.

Such being the result of settlements made among timber lands, which in general are poor lands for farming purposes, and in view of the great destruction to timber from this cause would it not be well that the various provinces should enact some law whereby settlement in the vicinity of tracts of pine should be prohibited?

Forest fires are frequently caused, too, by the carelessness of river drivers, especially of cooks, who do not take the pains and time to quench those which they have been using. This is a matter which the forost fire guardians should have control over, and they should be required to required to report to the proper authority any neglect on the part of river driving parties to extinguish fires which they may have been using, with a view to the punishment of the offenders.

There is a sad lack of knowledge in all the Provincial Crown land offices with regard to the extent and character of the timber under their control. Before, therefore, any effective system of forest conservation or protection can be originated, some accurate knowledge of these things for general use must be first acquired It might be well to make a commencement on the Ottawa, by ascertaining as nearly as possible where its pine lands are situated, where the country is chiefly hardwood, but also, above all, the locations which have been devastated by fire. As this information is acquired at the Crown timber offices from time to time it could be transferred to a plan which, in the end, would enable one to take in at a glance the extent of country yet unburnt. At the same time the proper authorities would at once see the country which required protection, and the service of men could be engaged for a month or two, in the spring and fall, to prevent settlers from locating near bodies of pine, as well as for the purpose of extinguishing incipient fires. The merchant takes an account of his stock; why should not governments do the same with theirs? And as the merchant takes precautions against the occurence of fire among his goods, so should the public protect their timber lands so far as possible from the same destructive agent. If our timber lands be worth anything they are worth protecting.

The subject of the prevention of forest fires is one which demands the attention of both Dominion and Local Legislatures. Indeed, in view of the very rapid disappearance of our forests, more especially of those of pine, the subject of legislation in regard to forestry and forest protection loudly calls for immediate action.—*Montreal Herald.*

## VENERABLE BUILDING MATERIAL

A New York paper of March 22nd had the following, writen from Dingman's Ferry, Penn:—"Moses C. V. Shoemaker, of this village, has one of the newest houses in Pike county, but its floors are laid with what is undoubtedly the oldest manufactured lumber in the Union in actual use for a similar purpose. The boards are made from yellow pine lumber. They are an inch and a half thick and almost two feet wide. The trees from which they were cut were felled along the Delaware River at Dingman's more than 160 years ago. The boards were sawed out by hand by ancestors of Mr. Shoemaker and were used as the floor in a stone house which they erected in 1724. This building also served as a fort, those early settlers being constantly exposed to Indian raids. The ancient structure was demolished a year ago to make room for the new shoemaker residence. It was in as good condition as when first built. There was not an unsound stick of timber in it, and not one which had been in it ever since the house was built. No lumber like the floor boards could be found in any lumber yard in the state to-day, for native yellow pine is now entirely extinct, and yellow pine lumber two feet wide and an inch and a half thick would be almost worth its weight in coin. When the old floor was taken out of the stone building a wealthy Philadelphian who was spending the summer at Dingman's offered shoemaker a price for the boards which would have almost paid for the new house, but he refused to part with them, and used them in his new residence. To all appearances they are good for use for another century and a half. From the timbers in the old stone house over 100 pounds of wrought iron nails were taken. They were four inches in length, and had evidently been made with rude implements. The work of forging must have been done on the spot, as there was no place nearer than Minisink settlement, near the present site of Port Jarvis, where the nails could have been obtained, and that was 24 miles up the river."

MANY soft timbers, especially walnut, are more destructive to the cutting edge of planes than harder wood, such as oak. The reason has been found to be the presence of extremely minute crystals of silica in these soft woods. These particles of uniform size and evenly distributed through the tissue of the wood.


# NATIONAL PUMP WORKS

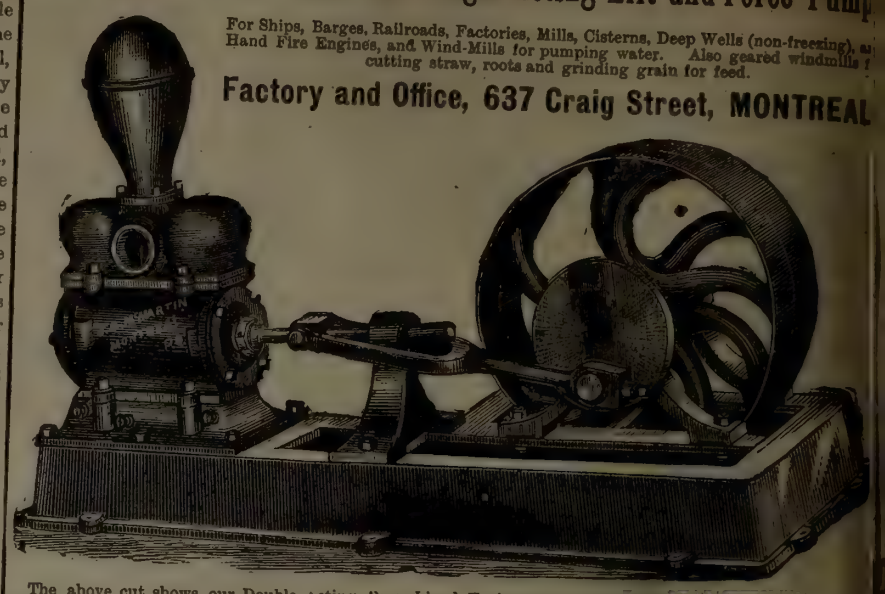
## J. A. McMARTIN & CO.

SOLE MANUFACTURER OF THE

## McMartin Patent Double and Single Acting Lift and Force Pump

For Ships, Barges, Railroads, Factories, Mills, Cisterns, Deep Wells (non-freezing), as Hand Fire Engines, and Wind-Mills for pumping water. Also geared windmills for cutting straw, roots and grinding grain for feed.

**Factory and Office, 637 Craig Street, MONTREAL**



The above cut shows our Double Acting Brass-Lined Horizontal Suction and Force Pump, mounted on a Cast Iron Bed Plate with tight and loose pulleys. 4 inch face, 18 inch diameter. This is one of the most compact and powerful pumps of the kind yet out, with Bed 4 feet long and 2 feet 2 inches where the pulleys are placed, all being in good proportion. The pump has a guide to the piston rod, and is driven by the connection rod attached to the disc with steel pin and wrought iron connections. The valve seats and valve are made of gun metal, and easily got at by bolts on either side of the pump, so that access to the bottom or top valve can be had without any difficulty. We make two sizes of these pumps, which are adapted for mills, factories or tanneries. We make these pumps with a clutch to drive them direct, when so ordered, and dispose of the pulleys and belt. All enquiries will be promptly answered, by addressing the above, and catalogues of our pumps sent out.

3m15.


## SUBTERRANEAN WOODS.

Clarence Deming, in his "By-ways of Nature and Life," says of the swampy regions of southern New Jersey:—"The huge trees which lie under the swamp to unknown depths are of the whste cedar variety, an evergreen, known scientifically as the Cypresses Thyoides. They grew years ago in the fresh water, which is necessary for their sustenance, and when in time, either by a subsidence of the land or a rise of the seas, the salt water reached them, they died in numbers. But many of them ere they died fell over as living trees, and were covered slowly by the deposits of muck and peat which fill the swamp. These trees that fell over by the roots, and known as 'wind falls,' to distinguish them from the 'break downs,' are the ones most sought for commercial use, and they are found and worked as follows: The log digger enters the swamp with a sharpened iron rod. He probes in the soft soil until he strikes a tree, probably two or three feet below the surface. In a few minutes he finds the length of the trunk, how much still remains firm wood, and at what place the first knots, which will stop the straight split necessary for shingles, begin. Still using his prod, like the divining rod of a magician, he manages to secure a chip, and by the smell knows whether the tree is a windfall or a breakdown. Then he inserts in the mud a saw like that used by ice cutters, and then saws through the roots and muck until the log is reached. The top and roots are thus sawed off, a ditch dug over the tree, the trunk loosened, and soon the great stick, sometimes five or six feet long, is brought to the surface and it is split by hand and worked into shingles, as well as into staves used for pails and tubs. The wood has a cross grain and splits as straight as an arrow. The shingles made from it last sixty or seventy years, are eagerly sought by builders in southern New Jersey, and command in the market a much higher price than ordinary shingles made of pine or chestnut, which lasts for roofing usually not more than twenty or twenty-five years. In color, the wood of the white cedar is a delicate pink, and has a strong flavor, resembling that of the red cedar, used in making lead pencils. The trees, once fairly buried in the swamp, never become waterlogged, as is shown by their floating in the ditches as soon as they are pried up, and what is more singular, as soon as they rise they turn invariably with their under sides uppermost. These two facts are mysteries which science has thus far left so. The men dig the logs up and split them earn their money. The work is hard, requiring, besides lusty manual labor, skill, and experience; the swamps are soft and treacherous, no machinery can be used, and long stretches with mud and water must be covered with boughs or bark before the shingles can reach the village and civilization."


A happy combination of best Grape Brandy Smart-Weed, Jamaica Ginger and Camphor Water, as found in Dr. Pierce's Compound Extract of Smart-Weed, cures cholera morbus, diarrhœa, dysentery or blood-flux, colic or cramps in stomach, and breaks up colds, fevers and inflammatory attacks.


## NOTICE.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Indian Supplies," will be received at this office up to noon of MONDAY, 25th MAY, 1885, for the delivery of Indian Supplies during the fiscal year ending 30th June, 1886, consisting of Flour, Bacon, Groceries, Ammunition, Twine, Oxen, Cows, Bulls, Agricultural Implements, Tools, &c., duty paid, in Manitoba, and the North-West Territories.

Forms of tender containing full particulars relative to the Supplies required, dates of delivery, &c., may be had by applying to the undersigned, or to the Commissioner of Indian Affairs at Regina, or to the Indian Office, Winnipeg.

Parties may tender for each description of goods (or for any portion of each description of goods) separately or for all the goods called for in the Schedules.

Each Tender must be accompanied by an accepted Cheque in favor of the Superintendent General of Indian Affairs on a Canadian Bank for at least five per cent. of the amount of the tenders for Manitoba, and ten per cent of the amount of the tenders for the Northwest Territories, which will be forfeited if the party tendering declines to enter into a contract when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted the cheque will be returned.

Tenderers are required to make up in the Money columns in the schedule, the total money value of the goods they offer to supply, or their tender will not be entertained

Each tender must, in addition to the signature of the tenderer. be signed by two sureties acceptable to the Department, for the proper performance of the contract.

In all cases where transportation may be only partial by rail, contractors must make proper arrangements for supplies to be forwarded at once from railway stations to their destination in the Government Warehouse at the point of delivery.

The lowest or any tender not necessarily accepted.

L. VANKOUGHNET,
*Deputy of the Superintendent-General of Indian Affairs.*

DEPARTMENT OF INDIAN AFFAIRS,
OTTAWA, 19TH MARCH, 1885.

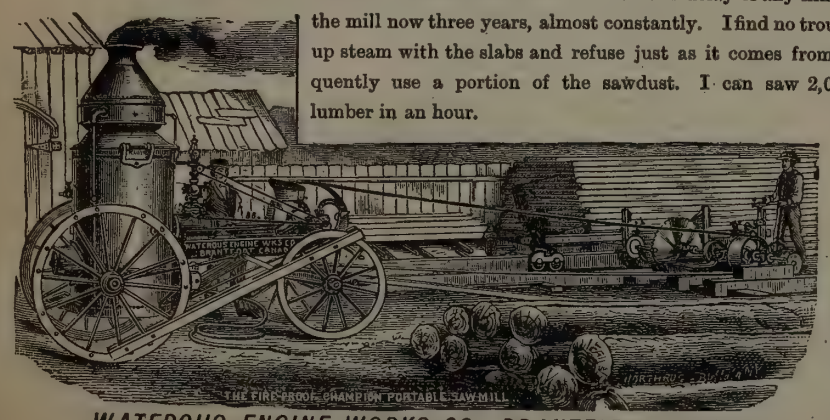
# American Saw-mill Machinery, PORTABLE AND SEMI-PORTABLE Direct Action & Belted Saw-mills

From 16 to 200 horse-power, and from a capacity of 2,000 to 80,000 feet per day of 10 hours.

## CHAMPION PORTABLE SAW-MILLS

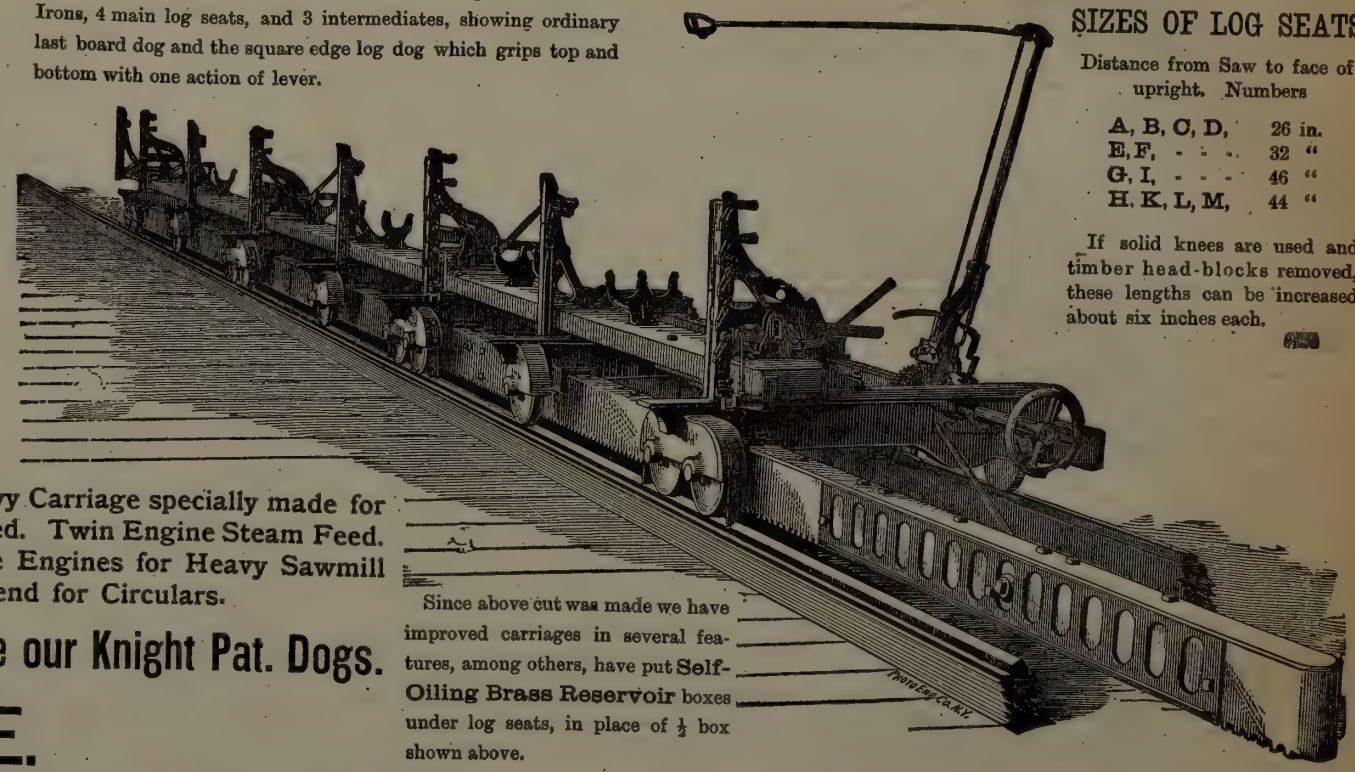
**12, 16, and 20 H.-P.**

GEORGE BOOK writes as follows:—"St. Ann's, Ont., July 27th, 1882: I have just finished sawing with your 20-horse Champion Engine, and No. 3 mill before harvest. At the last place I set down, we cut 345,000 feet, mostly inch, 70,000 being oak, in nine weeks. We were just ten weeks from time we moved mill till we returned home with it. We sawed above without an accident or delay of any kind. I have run the mill now three years, almost constantly. I find no trouble in keeping up steam with the slabs and refuse just as it comes from saw and frequently use a portion of the sawdust. I can saw 2,000 feet 1-inch lumber in an hour.




*WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.*

Represents Log Carriage to cut logs 40 ft. long. No. E Saw Irons, 4 main log seats, and 3 intermediates, showing ordinary last board dog and the square edge log dog which grips top and bottom with one action of lever.



### SIZES OF LOG SEATS

Distance from Saw to face of upright. Numbers

| | |
|---|---|
| A, B, C, D, | 26 in. |
| E, F, - - - | 32 " |
| G, I, - - - | 46 " |
| H, K, L, M, | 44 " |

If solid knees are used and timber head-blocks removed, these lengths can be increased about six inches each.

☞Heavy Carriage specially made for Steam Feed. Twin Engine Steam Feed. New Style Engines for Heavy Sawmill Work. Send for Circulars.

**Examine our Knight Pat. Dogs.**

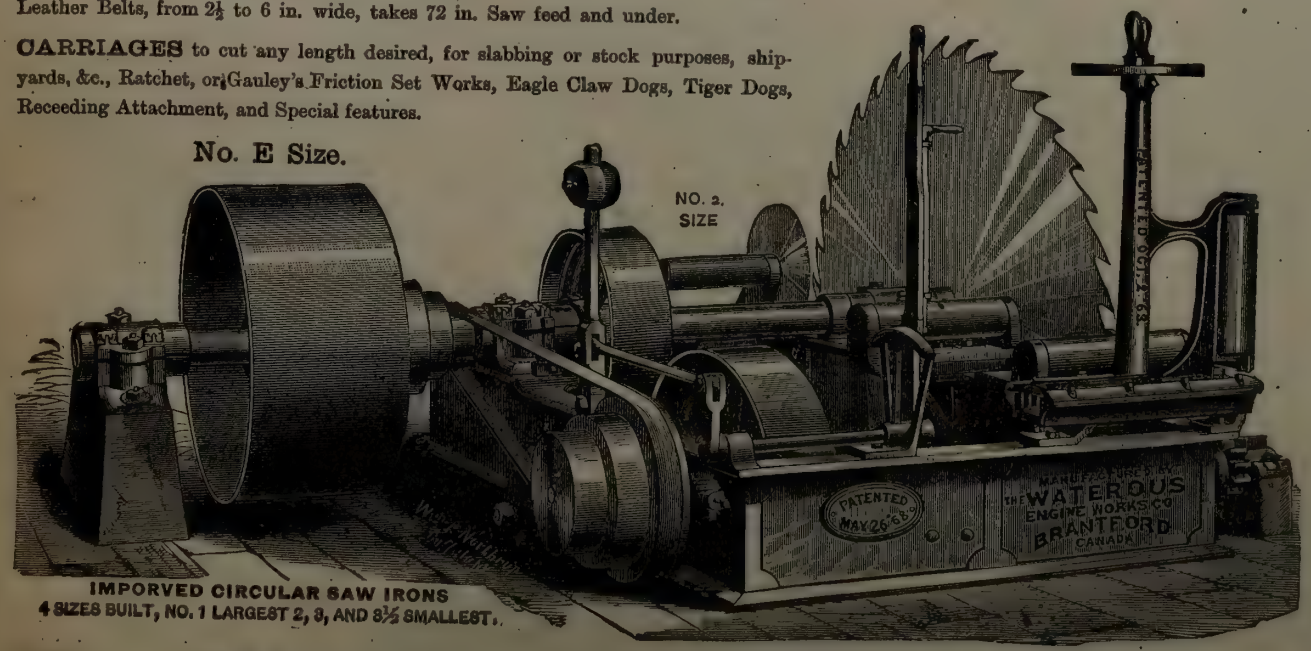
Since above cut was made we have improved carriages in several features, among others, have put **Self-Oiling Brass Reservoir** boxes under log seats, in place of ½ box shown above.

## IMPROVED SAW FRAME.

Using 4 to 12 in. Face Frictions: Steel Mandrels; Reservoir Oil Boxes:—Double Leather Belts, from 2½ to 6 in. wide, takes 72 in. Saw feed and under.

**CARRIAGES** to cut any length desired, for slabbing or stock purposes, shipyards, &c., Ratchet, or Gauley's Friction Set Works, Eagle Claw Dogs, Tiger Dogs, Receeding Attachment, and Special features.

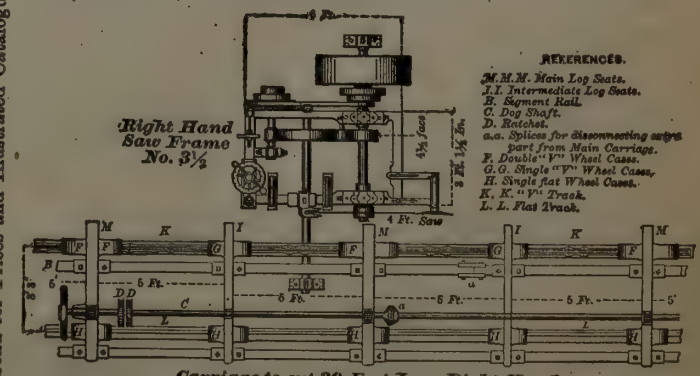
**No. E Size.**




IMPORVED CIRCULAR SAW IRONS
4 SIZES BUILT, NO. 1 LARGEST 2, 3, AND 3½ SMALLEST.

By direct practical experience of over forty years in the lumber woods of Canada we have gained an intimate practical knowledge of what is necessary to produce a cheap, practical, efficient saw-mill, and have so built and improved our machinery that no mills can compare with them to-day in these respects.

This view of our smallest Saw-Irons illustrates fairly all the eleven larger sizes that we make.
**No. A.**




*Carriage to cut 30 Foot Logs, Right Hand.*
Shows Carriage with Slides on Log Seats, Upper Rail and Knees or Uprights removed.

☞Send for Prices and Illustrated Catalogue.

**Send for Sawyers and Lumbermens Handbook. A new treatise on Saws and Saw-mill furnishings, just published. Free to all using Saws.**

# The Waterous Engine Works Company, Brantford, Canada.

## CANADIAN WOODS USED IN MANUFACTURE.

We continue our quotations on the above subject from Mr. R. W. Phipps' Forestry report :

From an Orillia barrel factory :—

I may state that I use oak, elm, ash and basswood in my business, which is that of preparing material for both tight and slack barrel work, principally flour barrels. The timber is original. Any size of trees from six inches to sixty inches are used. Second growth timber would not do, as it is too tough.

From a match factory at Buckingham :—

The wood used in our business, matches, is pine, and the very best at that. My stock I obtain in this section of the country, Ottawa. Much that I use is the buttings from three inch deal, the piece that is cut from the deal to bring it to length. When the supply of that kind of stock is not sufficient I use the deal. Of course you know that deal is cut from the best and largest logs. Lumber that I use for my cases is largely spruce, as that is cheaper and I think makes a tougher case, although sometimes I use pine.

From a grain cradle factory at Mount Forest :

I get my supply in this neighborhood, but find it getting scarce and require to go some distance now to get the required quality. The timber use for snaiths is elm. I prefer white ash, but it is not to be had in this vicinity, only in very small quantities. For fingers I use maple, natural crook. That also is getting very difficult to get. The size of elm trees should be from six to fifteen inches in diameter ; maple any size. I might say all kinds of merchantable timber, such as pine, rock elm cherry, and basswood are scarce. Of maple and hemlock there is a fair supply in this neighborhood, that is within a radius of about six miles. Of course, in the immediate neighborhood, there is little or no timber to be bought, the farmers requiring all they have for their own use.

From the veneer factory at Harriston :—

We use mostly soft and rock elm, also birch, which after cutting into proper lengths and steaming, we tut up into veneering and barrel staves and cheese box material. We also use basswood for manufacturing into barrel heading and tops and bottoms of cheese boxes. All the timber used in the factory is grown in this township (Minto), of which two inches up to four and five feet in diameter, the soft elm especially attaining good size. We use no foreign timber of any kind.

From a prominent piano manufacturing firm in Guelph :—

We give herein a list and description of the wood used by us in our business, as piano manufacturers. Black ash of the largest size and best quality, used for tops and rims of pianos, to be veneered with rosewood. Basswood and whitewood of the largest size, and best quality, carved into legs and lyres for pianos. Pine of the best and softest quality, (white), for keys, and also for bottoms and blocks used in building cases. We also use cherry for upright piano cases, and small parts of all pianos, this of the best quality. The foreign wood used is spruce, (American), for sounding boards, and rosewood veneer. We have found our Canadian spruce too hard and gummy in its nature to answer our purpose. It does not give to the piano that sound which the American wood does, and is much more difficult to work. You see all the wood we use requires to be of the largest size and best quality ; soft grain, not liable to warp or twist, and easily worked. Cherry veneer could be used, but there are no mills in Canada that can cut veneer ; we get cherry veneer from New York, yet most of our best Canadian cherry lumber goes into the American market.

The following is from a leading furniture factory in Toronto :—

Concerning the kinds of Canadian wood we use in the manufacture of furniture in our business, I will class them according to their respective value. First, black walnut, which is principally used in the better class of furniture, grows in the western part of Canada, especially in the counties of Essex, Kent, Elgin, Norfolk, Lambton and Middlesex. In all these sections the walnut has become nearly exhausted, and if there is not an effort made in planting this valuable wood, it will not take many years to become extinct for commercial purposes. The price we pay for first class walnut is from $80 to $100 per thousand. Cherry is another wood that is used for the better class of furniture. It grows generally all over Ontario, more or less, and is becoming very scarce, owing to the demand for it in the United States, where most of it has gone. Its market value is from $40 to $50 a thousand. Oak is used by us, but not very extensively, it not being always very suitable for furniture. Value about $30. White pine is much required in our business, but it needs no comment from me, as no doubt you are well acquainted with that class. Hard maple, or sugar maple as it is sometimes called, grows extensively throughout the whole of Canada. From it we make our inferior class of furniture, such as chairs, bedsteads, etc. Value about $16. Rock and soft elm are getting to be very much used for a certain class of furniture, because it is so easily worked. It is cheap and and abundant. Price, about $12 to $14 per thousand. Soft maple and whitewood are woods that we handle a large quantity of, especially the maple. These grow luxuriantly in the western part of Ontario, and are always found abundant where there is walnut. Their price per thousand is from $16 to $18. Butternut is also used in cabinet making. It grows generally all over the Province, is not very abundant and is getting scarce. Price, from $25 to $30 per thousand. White and black ash are valuable woods for our business, and very much used. They grow generally all over the Province in large quantities, especially the black ash, which has a very beautiful grain. Its price ranges from $18 to $20 a thousand. Basswood also is in much use in our manufactory and is from $14 to $16 per thousand. Original growth and old trees we prefer for our business, as they are better adapted and easier worked. Second growth is better for bending purposes. Of it we use a little, but it is more adapted for waggon and carriage making.

Some further details of the uses of woods in furniture, may be interesting. For instance, chair and table legs are made of maple and birch, those of the better class of tables, of walnut ; the curved portions of chairs, such as arms and backs, of rock and soft elm. Seats formerly made of basswood are now water elm, except those of rocking-chairs, which are still basswood. All visible portions of first-class tables are generally made of one wood, such as walnut or cherry. The inside machinery of extension tables, as of other furniture, where great strength and freedom of movement is required, is of white ash. Swamp elm is largely used for the tops and sides of tables, the legs being generally maple. Wash-stands, visible portions, of soft elm, concealed ones of pine or basswood. In bedsteads displaying the large smooth boards which are now fashionable, walnut, ash, red oak and water elm are used, the upright portions being often maple, ash or walnut. Sideboards and wardrobes are made of cherry, red oak, water elm, and walnut. Some of these woods are used for such purposes, veneered with more showy ones, frequently of foreign importation. In common chairs, cheap tables and bedsteads, the woods generally used are basswood, whitewood and water elm.

The next is from a similar firm in Belleville :

The descriptions of Canadian woods used in my business, are black ash, black birch, cherry, soft and hard maple (beech is also used for chair work), grey or swamp elm ; this last of late is coming into extensive use, and has a beautiful grain, and makes a fine cheerful finish. The objection which formerly prevailed against elm was the difficulty of drying it to keep straight, which is now entirely overcome. Basswood is largely used ; our black walnut nearly all comes from Indiana. All the other kinds named are native woods, and except some basswood and some ash, are all of original growth, in fact the two latter, in my mind, are the only ones which would reach a size fit for use in less than about seventy years. From casual observation, basswood will grow to a diameter of ten to thirteen inches in from seventeen to twenty-five years in favorable ground. Soft maple is very useful, but comparatively scarce. Birch is next in value to cherry, which is next in price to black walnut. Cherry is not abundant in this section, but birch is found in abundance just north of us, and is yearly increasing in demand.

Though scant of space I am persuaded to give my readers the following well written little essay by Mr. J. B. Smith, a gentleman connected with one of our principal Toronto lumber firms. It is a mass of valuable information, and comes from a thoroughly practical man :

The reckless waste of woods which has been going on for years, must eventually find an end in the total destruction of the timber with which this Canada of ours was once so bountifully endowed. The losses incidental to the getting out of logs have been partially estimated, but the consequential damages, such as the changes in the climate, water supply and others, cannot be computed. Let any Canadian of middle age recall the appearance presented by the forest in the days of his youth, and compare that with the present. He will remember the immense monarchs of the forest that stood towering in their rugged strength. "The Monarch Oak, the patriarch of trees ;" the wide spreading beech, the ash, Venus of the forest, with the feathery lightness of its foliage ; the noble elm, the butternut, hickory, and the birch, with others, many of which have disappeared. And what will our Canadian now see ? No well guarded young trees replacing those which fell before the unrelenting woodman's axe, but dwarfed specimens of unhealthy progeny, or the fast decaying stump, a memento of departed greatness. Our duty is clear, not to mourn over the past wanton destruction, but to be up and doing, providing for the reproduction of woods each year becoming more scarce. Reproducing is our sole recourse. This cannot be too strongly urged upon our farmers. We know what description of timber grew in certain localities, why not replant ? In some counties walnut, whitewood, white ash, etc., were to be had in abundance. Now few of these trees are to be found. Necessary information can be obtained and furnished to all wishing to engage in arboriculture. Few of the trees of our forests but have been manufactured into lumber and placed on the market. They are all used in the many industries—ash (white and black), birch, beech, basswood, butternut, balm of Gilead, cherry, cedar, chestnut, rock and soft elm, hickory, hemlock, hard and soft maple, red and white oak, pine, tamarac, spruce, sycamore, walnut and whitewood.

In agricultural implements, including wagons, are used white ash, oak, maple and rock elm.

Buildings —pine, hemlock, maple, oak, black ash, elm, birch, butternut, cherry and chestnut.

Boats—pine, oak, spruce, tamarac and cedar.

For cabinet work—birch, soft elm, maple, cherry, walnut, butternut, oak, black ash, basswood, etc.

Car building—oak, pine, cherry, birch, maple, tamarac, walnut and whitewood.

Pianos and organs—walnut, whitewood, basswood, pine, chestnut, cherry, oak.

Tool handles—birch, maple, etc.

And a host of minor industries all contribute to consume the product of our forests. We are not content with our native woods, but go to far off climes for lignum vitæ, boxwood, mahogany, rosewood, baywood, tulip wood, holly, etc. These we cannot produce. The average diameter of trees manufactured into lumber is from 18 to 24 inches ; this includes all the above mentioned kinds. These are, in the close grained woods, mostly the original ; of a few they cut up the second growth.

The different species I have enumerated are to be found pretty evenly distributed. Walnut, whitewood, ash, maple, hard and soft elm, oak, balm, hickory, chestnut, sycamore, pine, basswood and cherry, are said to be had in greater or less quantities in the southwestern counties. For birch, rock elm, beech, maple, basswood, poplar, pine, hemlock, tamarac, we go to the northern and northwestern, as well as the eastern counties. Black ash is at present a plentiful wood and can be obtained in almost any part of the Province. Soft elm is abundant but even with our present plentiful supply, it will not long stand the demands made by American dealers, who, taking none but the largest and choicest trees, use quantities of this and other timber in manufacturing staves. Each year sees a diminished quantity of hemlock. Our supply of bark for tanning will soon be exhausted. Cherry is very scarce ; what we have is a poor quality. The demand for this wood during the past year has almost exhausted our supply. In the process of ebonizing, so much in vogue, great quantities of cherry are used. White ash, butternut, and white oak, are also becoming woods of the past. Of walnut very little is to be had, and that is cut from partially rotten logs, which, when it was more plentiful, were cut, and, not being considered sufficiently good, allowed to decay. We roited in the abundance of our forest wealth and are now suffering somewhat of the evils attendent on such a course. To-day we import whitewood and walnut from places to which formerly we exported large quantities of the same timber, much superior to what they are now bringing in.

We find the difficulty of getting a good quality of white oak, white ash and cherry increasing each year.

We are certainly opening up and clearing the country, but at a terrible cost.

In fine, unless we at once begin to reproduce, the limit of our forest wealth will soon be reached. It is not inexhaustible. Fires, cattle, and men, not lumbermen alone, but campers, hunters, etc., seem combined to destroy the remnant of what seemed an endless supply, as well as to prevent the growth of young timber.

As to the prices of Canadian woods, it is difficult to give you, as prices differ so much, they being regulated principally by the general run of the stock under negotiation, and the average quality of stock in different parts of the Province are not at all alike. However, I will give you the prices we would pay for the different kinds, loaded on cars at point of shipment, per thousand feet ; cherry, $35 to $40 ; butternut, $30 to $35 ; chestnut, $19 to $21 ; white oak and white ash, $18 to $20 ; red oak and black ash, $12 to $14 ; soft elm, $8 to $9 ; rock elm, $10 to $11 ; whitewood, $19 to $30 ; basswood, $11 to $12 ; sycamore, $12 to $13.

Above prices are for first and second quality, together to average not less than fifty per cent. of first. Cull cherry and butternut is worth about $14. Culls in the other woods would be worth about one-half the above prices. Pine is generally bought mill run, with mill culls out, and is worth from $10 to $14, according to the percentage of clear lumber in the stock. Mill culls are worth $5 per thousand feet. Hemlock billstuff is worth (up to sixteen feet long) $7, and an advance of fifty cents per thousand for every two feet over that length up to say twenty-two feet ; over that length it is worth considerable more.

## Power Wasted by Shafting Out of Line.

The amount of power wasted by shafting being out of line, badly lubricated, of insufficient size and imperfectly coupled, can hardly be estimated. Great as is this loss, that from badly laced, crooked, stiff, and generally outrageous belting is but little less. In some establishments a belt lacing of sufficient size for the main belt of the establishment is considered plenty good enough to lace a three inch belt with, and is used accordingly. A punch large enough to make holes for the biggest lacings is, of course, necessary, and it has the advantage of answering for all sizes of belts. The apparent advantage of having but one size in a large establishment is captivating to the business department. The result in belt efficiency, however, is something which would astonish the counting house if it could be made to understand the figures.—*Industrial American.*

**For the Ladies.**

Laughter is the poor man's plaster,
Making every burden light;
Turning sadness into gladness,
Darkest hour, too may dawn bright,
'Tis the deepest and the cheapest
Cure for ills of this description,
But for those that woman's heir to,
Use Dr. Pierce's "Favorite Prescription."

Cures all weaknesses and irregularities' "bearing down" sensations, "internal fever," bloating displacements, inflammation, morning sickness and tendency to cancerous disease. Price reduced to one dollar. By druggists.

# Chips.

JAMES PRICE was killed by a falling tree at Kalkaska, Mich.

SAGINAW mill men are making contracts to saw logs at $1.75 to $2 a thousand.

JOHN MURRAY has put in 12,000,000 feet of logs at his camp near Roscommon, Mich.

IT is stated that there are 400,000,000 feet of logs on and in the Menominee, Mich., river, ready to be run down to the mills.

THE lumber piled at Selkirk, Manitoba, was lately removed to high ground to prevent its being washed away by the spring freshet.

ED. WHITE, employed in Bellant's camp, Cheboygan district, Mich., was so injured by a log rolling over him that his recovery was considered doubtful.

THE farmers in Victoria and Madawask, Me., have got out during the past winter 45,000 railroad ties, which have found their way into the hands of A. B. Spence, of St. Stephens, N. B.

THE largest cedar camp on the Lake Michigan shores is said to be that on Drummond island, Mich., conducted by Warren Baily for himself and Joseph Smith. About 80 men are employed.

JAMES DUNBAR is building a mill at Sun dridge, Muskoka district, Ont. There is pine in the vicinity tributary to the mill amounting to 60,000,000 feet, standing within McArthur Brothers' limits.

AN effort is being made to save the Duluth & Winnipeg land grant by building the road within the required time—three years—and meetings in promotion of that endeavor have been held at Duluth and Grand Forks.

THE total estimated value of lumber shipped from Puget Sound ports during Feb. was $41,947. There cleared from Burrard Inlet, British Columbia, during the same month, five cargoes, mostly from Australia, containing lumber of the estimated value of $43,229.

IT is proposed to form a company with a capital stock of $75,000, for the purpose of doing the towing on the Erie canal in a wholesale way. It will require 600 mules, and by the proposed system 350 boats can be towed at 13 cents a mile for the season, whereas under the present practice of individual towing it cost 23 cents per mile.

### Some Wood-Work.

In the house of Potter Palmer in Chicago, which is approaching completion, the fine wood work is a prominent feature. Among the rooms of special desingn is one called the Japanese room. Not only is it Japanese in style but in construction also. The finishing and furniture is imported from Japan, all ready to be set up. The mantel and the rest of the trim is in Japan teak, elaborately carved. The wood is not particularly handsome, looking much like dark and coarse red oak, but the distance from which it was brought, and the work on it, brought up its cost to $5,000, which is said to be the price paid by Mr. Palmer.—*Northwestern Lumberman.*


### How Pale You Are!

a frequently the exclamation of one lady to another. The fact is not a pleasant one to have mention, but still the act may be a kindly one, for it sets the one addressed to thinking, apprises her of the fact that she is not in good health, and leads her to seek a reason therefor. Pallor is almost always attendant upon the first stages of consumption. The system is enfeebled, and the blood is impoverished. Dr. Pierce's "Golden Medical Discovery" will act as a tonic upon the system, will enrich he impoverished blood, and restore roses to the cheek.

### Advice to Mothers.

**Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world Price 25 cents a bottle.**

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1yl22.

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**LUMBER MERCHANTS**
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**LUMBER AND TIMBER.**
**Building & Bridge Timber Sawn to Order.**
Pine, Spruce and Hemlock Lumber by the Cargo.
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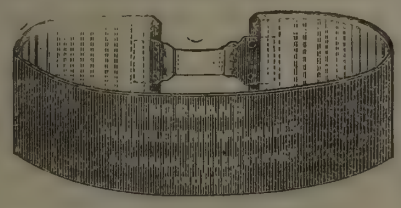
## BAKING POWDER.
DOMINION SILVER MEDAL
At Ottawa Exhibition, 1884. It is the most economic and the best in use. Perfectly Pure. L20-1y



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*Electric Belt Institution,*
(ESTABLISHED 1874),
4 QUEEN STREET EAST, TORONTO.

NERVOUS DEBILITY, Rheumatism, Lame Back, Neuralgia, Paralysis and all Liver and Chest Complaints immediately relieved and permanently cured by using these BELTS, BANDS, AND INSOLES.
Circulars and Consultation FREE.

A FEW SIMPLE TESTIMONIALS THAT SPEAK FOR THEMSELVES.

OTTAWA, September 3rd, 1883.
A. NORMAN, ESQ.—Dear Sir,—I have experienced considerable benefit from your appliances. I feel stronger and better every day.
Yours truly, R. E. HALIBURTON.

PETERBOROUGH, October 15, 1883
A. NORMAN.—Dear Sir,—Soon after I commenced to use your Electric Appliances, they opened my bowels, cured my cough and cold, relieved my head and considerably relieved my catarrh in consequence. The discharge from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good.
Yours truly, J. GREEN.

CURATIVE BATHS, Electric, Vapor, Sulphur and hot and cold Baths. Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them, at
4 Queen St. East Toronto.
L14-1y A. NORMAN, Proprietor.

The American Hotel,
BARRIE, ONT.
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RATES REASONABLE, CENTRAL LOCATION, FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
1Ltf W. D. McDONALD, Proprietor.

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For PURITY,
WHOLESOMENESS,
And STRENGTH
**It stands without a Rival!**
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FAIRPORT, N.Y., and TORONTO, ONT.
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Collect and Ship them to be
## RE-CUT
BEFORE THE SPRING OPENS.
## DO NOT WASTE
Your Money on Buying new, when the old ones will do. We pay Freight one way,
SHIP THEM TO-DAY
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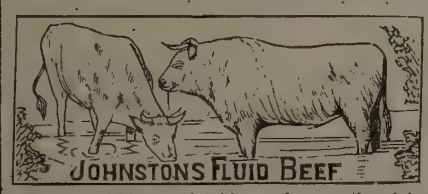


The nourishing, palatable and warmth giving qualities of Johnston's Fluid Beef has caused this invaluable preparation to before a favorite and fashionable beverage for the winter season. It is now obtainable on draught at the leading hotels and restaurants throughout the Dominion. 6L1

Is the Best and Most Economical article in use for raising all kinds of Biscuit, Rolls, Pancakes. Johnny Cakes, &c. It is made from the BEST MATERIALS MONEY CAN BUY, and is perfectly pure and wholesome. Bread ready for the table can be prepared by its means in TWENTY MINUTES after wetting the flour. Next to salt it is the most useful adjunct to camp supplies.

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IS THE ONLY GENUINE, BE SURE YOU PURCHASE NO OTHER. 1yL15

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*BOILERS.*
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Wood and Iron Working Machinery
Tools and Plant for Mills and Factories, of every description.
Engineers Supplies—Belting, Oils, Etc., Etc.
Machinery complete for Two Light Draft Steamers, taken from the Strs. "Milford" and "Huntley."
Colquhoun, Drummond & Co.
MACHINERY DEALERS,
45 Common Street, MONTREAL.

J. T. LAMBERT,
*Lumber and Commission Agent.*
ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF
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PROMPTLY ATTENDED TO.
Timber Limits and the Square Timber Trade a Specialty.
Office, Wellington Street, OTTAWA. 1Ltf

**PLANER KNIVES,** Stave Cutter' Stave Jointing, Shingle do, Cheese Box, Veneer Cutting, Paper Cutting, Leather Splitting, Moulding and Tenoning Knives.
Send for Circular Price List.
1yL11 PETER HAY, Galt.

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Examine the list of
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THE MAIL has become
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English Extract of
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One of the Best
KIDNEY
INVESTIGATORS IN USE.

It is a specific in the cure of all diseases of the Kidneys, Bladder, Prostatic Portion of the Urinary Organs, Irritation of the Neck of the Bladder, Burning Urine, Glee, Gonorrhea in all its stages, Mucous Discharges, Congestion of the Kidneys, Brick-dust Deposit, Diabetes, Inflammation of the Kidneys and Bladder, Dropsy of the Kidneys, Acid Urine, Bloody Urine, Pain in the Region of the Bladder, PAIN IN THE BACK, Urinary Calculus, Renal Calculus, Renal Colic, Retention of Urine, Frequent Urination, Gravel in all its forms, Inability to retain the Water, particularly in persons advanced in life. IT IS A KIDNEY INVESTIGATOR that restores the Urine to its natural color, removes the acid and burning, and the effect of the excessive use of intoxicating drink.

**PRICE, $1; or, Six Bottles for $5.**
Send for Circular. Sold by all Druggists.
W. JOHNSTON & CO.,
161 Jefferson Ave., DETROIT, MICH.

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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion

All communications, orders and remittances should be addressed and made payable to THE PETERBOROUGH REVIEW PRINTING AND PUBLISHING COMPANY (LIMITED), Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., APRIL 15, 1885.*


THE Little Bob mills, Bobcaygeon, commenced running on April 7th.

A MEETING of the Province of Quebec orestry Associatiou was called to meet at the arliament buildings on April 11th.

A PULLEY heated and burst in Baker Bros.' saw mill at Blenheim on April 6th. One piece struck John Graham, a member of the firm, in the eye, completely cutting his eye out.

ELLIOT BROS' saw mill, Westminster township, Middlesex Co., was burned on April 2nd. A flaw in the furnace was the cause. The contents were also burned, but the lumber was saved. Loss, $1,000; no insurance.

THE Duluth *Herald* is responsible for the statement that the log crop in the Duluth district has been curtailed to such an extent that the lumber cut the coming season will be only about 50 per cent. of that of last year.

AND now comes the report that a syndicate has been formed to buy all the pine lands on the market in the upper peninsula, of Michigan, to keep up prices. The Marquette *Mining Journal* says that 3,000,000,000 feet has already been secured.

Two far north men have gone to the rescue of the east coast of Florida from isolation. A. D. Chappel, of Eau Claire, and J. C. Thwing, of St. Paul, are respectively president and vice president of the Blue Spring, Orange City & Atlantic Railroad Company, that purposes to build a road in Florida south of St. Augustine, along the coast. The charter is an old one, and gives the company 100,000 acres of land, a large portion of which is covered with pine and cypress timber. Three miles of road is already completed, that section between Blue Spring and Orange. It is proposed to have the entire line finished inside of 10 months.

REPORTS from Chicago are to the effect that the lumber market is continuing to exhibit a gratifying state of activity.

THE *Lumberman's Gazette* says:—From actual scales in many of the camps on the Au Sable and Pine rivers, and careful estimates of the balance, the amount of white pine and Norway logs harvested this winter on these streams is set down at 130,410,000 feet. This is nearly 23,000,000 feet less than last year's crop; but taking into consideration the fact that the Smith, Gratwick & Fryer Lumber Company have 26,000,000 feet which are manufactured for their yards at Tonawanda, Albany and Cleveland, and the product of which is not on the Michigan market, it will be observed that there is a reduction of about 50 per cent.

## THE FORESTRY ASSOCIATION.

QUEBEC, April 11.—The Forestry Association of the Province met this morning in the Parliament buildings, under the presidency of Mr. Joly. Among others present were the Crown Lands Commissioner, Mr. Lynch, Messrs. S. Lesage, S. C. Stevenson, Charles Gibb, Abbotsford; Barnard, Proulx, Chapais, W. Little, L. Beaubien, and a number of members of both houses. The Chairman delivered a most interesting opening address which was much applauded, and was followed by Messrs. Lynch. Beaubien, Little, Gibbs, Stevenson, Cassavan and Morin. A resolution proposed by Mr. Little, that the Association respectfully recommend that early action be taken by the Government to arrive at an approximate idea of the quantity and quality of pine and spruce timber still remaining on the Crown lands of the Province, and another by Mr. Stevenson inviting all educational establishments, whether for boys or girls, to observe the forthcoming Arbor Day as a complete holiday and for tree planting purposes, were unanimously adopted. Another meeting will be held this afternoon.

## QUECEC FORESTRY.

The forestry association of the Province of Quebec will meet on Saturday next at 11.o'clock a. m. in the Parliament buildings, Quebec. Since the first forestry convention was held in this city the subject of forest conservation and reproduction has received extended and, in many respects, fruitful attention from both the authorities and people of the Dominion and the Provinces. Several valuable works, the off spring of official or private study and enterprise, have given to the world. The lumber merchants, farmers and others, more particularly interested in the preservation of our forest wealth, have been awakened to the necessity of precaution on the one hand, of effort on the other. Altogether the subject of forestry never was accorded more practical attention than it has received during the last few years, and this happy result is largely due to just such organizations and meetings as that to which we now draw attention. It is to be hoped, therefore, that the interest aroused will be maintained and that all who are concerned in a subject of such far-reaching importance or who may have any suggestions to make in connection with it, will endeavor to attend the meeting of Saturday nezt, or, if unable to be present, will send in their names for membership. From all that we learn the meeting is likely to be extremely successful.—*Montreal Gazette.*

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Mar. 31, 1885, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 925 F. St., N. W., Washington, D. C.:—

314,666.—Planing machines, feed mechanism for wood—W. H. Gray, Brooklyn, N. Y.

314,637.—Saw arbor—W. D. Wolcott, Wrights, Pa.

315,562.—Saw handle—F. A. Buell, Brooklyn, N. Y.

314,650.—Saw mill carriages, steam brake for—W. A Campbell, East Saginaw, Mich.

314,944.—Saw set—W. Kopf, Santa Rosa, Cal.

314,667.—Sawing machine, circular—W. H. Gray, Brooklyn, N. Y.

314,603.—Shingle sawing machine—W. J. Perkins, Grand Rapids, Mich.

314,792.—Tenoning machine—J. R. Brumby, Marietta, Ga.

PATENTS ISSUED APRIL 7.

314,434.—Barrel making machine—F. Myers, New York, N. Y.

315,032.—Log turner—W. E. Hill, Kalamazoo, Mich.

315,073.—Log turner—G. W. Robinson, Millview, Florida.

315,222.—Molding machine, wood—H. Baxter & A. F. Anton, Memphis, Tenn.

315,014.—Plane, bench—J. Duncan, Coshocton, Ohio.

315,406.—Planing machine.—W. H. Gray & A. Hutchinson, Brooklyn, N. Y.

315,372 & c. (3 patents)—Saw—E. Andrews, Williamsport, Pa.

215,229.—Saw guide—G. S. Black, Indianapolis, Ind.

315,133.—Saw jointing device—G. S. Black, Indianapolis, Ind.

315,133.—Saw mill dog—W. A. Durrin, Hersey, Wis.

315,033.—Saw straightening machine—A. E. Hoffman, Fort Wayne.

315,104.—Saw swage—H. R. Wolf, Louisville, Ky.

315,419.—Saw teeth, protector for—A. Krieger, Columbus, Ohio.

## THE TIMBER TRADE.

The winter that seems to be here still has been so long and steady that the cut of timber for shipment this spring is very large, and it is likely that the shipments from this port will be greater than last year. Very little lumber has yet arrived from the north, as dealers are waiting for some sign of the opening of navigation before sending their timber to the water. Mr. P. Murphy, of Quebec, who rafts or ships from Hamilton every year, has about twelve cargoes ready to send to this city as soon as the ice begins to break up. He has made charters at through rates to Quebec for his timber with the fleet of Calvin & Son, of Garden Island, and a couple of Toronto vessels. None of it will be rafted here. McArthur & Brother will ship several cargoes from Hamilton and will raft the remainder of their cut at Toronto. Messrs. Flatt & Bradly will raft here as usual, and will send out a greater quantity than last year. Mr. McRea will also ship from this port, and the season will be a busy one for the timber vessels. —*Hamilton Times.*

## FOREST DESTUCTION.

Though the destruction of forests goes on with rapidity there seems but little concern manifested in such an important matter. Forests that required centuries to mature are swept away in a day and no adequate measures taken to provide a future supply. Wood will be a necessity to the human race for many years to come, if not for all time, to say nothing of the effect on climate of forest destruction, and a wise people would make provision for the future while consuming the supply furnished by the wilderness. Such provision is made in many European countries, where forestry has been reduced to a science, and where cultivated forests have long furnished a large proportion of the supply. In France, especially, forestry has received great attention, and a walk in the country often leads past beds of diminutive trees growing from the seed. Arbor Day, which is recognized in several States of the Union, and has received a start in Ontario, is a step in the right direction, but it is a very little step, and we should make a better one. Probably the establishment of a Bureau of Forestry would be the most effective step that could be taken. It would prevent needless waste on Government lands, instruct the people in the science of forestry and lay the foundation for large forests that in time would be a source of great revenue to the Government.—*London Free Press.*

## MINNEAPOLIS LUMBER MOVEMENT.

A despatch from Minneapolis says:—In anticipation of the advance of rates on lumber to southwestern points the dealers in St. Paul and Minneapolis have been shipping out their lumber at a prodigious rate. In Minneapolis the railroads have been taxed to furnish cars. The receipts in St. Paul show also that lumber is freely moving from Wisconsin points. The shipments during the past week from Minneapolis were 384 cars, to 339 cars for the preceding week, and from St. Paul 155 cars, to 128 cars the preceding week, an increase for the week of 72 cars. The receipts in St. Paul were 262 cars and in Minneapolis 135 cars.

There has been a steady improvement in all quarters of trade during the last month, and it has had the tendency the stiffen prices. Country dealers are still buying cautiously. Assortments are becoming badly broken, however, and there is some apprehension of low water. Anything that should keep back the logs would tend to advance prices steadily. The local trade is improving under the encouragement of mild weather, and it is apparent that there will be a very large amount of building in both St. Paul and Minneapolis during the season. The loggers have now about all come out of the woods.

## THE LUMBER CUT.

It seems to be generally conceded that the cut this year will be just about one-half of what it was last winter. A *Tribune* reporter, during the last few days, has called upon a number of the leading men of the city, and from each he heard the same story. For the number of crews out, the cut has been good, especially latterly, until a week or so ago; but no exact figures are yet obtainable. Most of the houses have sent their men up to break up the camps. Some have already broken, while some firms propose leaving one crew out a while longer yet.

The prospects on all sides are reported as pointing to a lively building season. Little or no buying has yet been done, but the enquiry is unusually brisk and clerks are kept busy. "People all recognize," said one prominent lumberman, "that they may wait for a good many years without finding another season so for building operations as this. Material is cheap; labor is cheap, and with the business revival which is sure to come in the spring, now buildings in the Northwest are likely to be no bad investment."

The dislike to the scheme incorporated in the senate bill for the formation of a company to drive the upper river, does not appear to grow any weaker as the facts are better understood. The "surplus absurdity," or the provision for the repayment to the log owners of any surplus of net profits which might remain after company had spent all it saw fit "for the general convenience of its business," continues to be the laughing stock. The suggested rates, moreover, are regarded as altogether too high. On the one-third of a cent to the mile basis, log owners would have to pay about 50 cents for what they can now get done for about thirty. The only people who would be likely to gain much by it are the up river men, and Minneapolis owners still refuse to see the exact propriety of their being tolled for the benefit of the up river men.

In the course of a conversation on boomage matters one gentleman made some novel suggestions as to the Mississippi and Rum river boom company's position. The company has been a highly prosperous concern and on its 45-cent basis has made money enough to carry out some pretty large investments. One at least of those investments, it is hinted, the company had no right to make by the laws of its charter. The payment of the taxes of its shareholders, it is also suggested, is illegal, and, in case the company fails to reduce its rates to 30 cents or thereabouts, the log owners may think it worth while to reduce this question of legality and annul the charter to make room for a new company which will accommodate itself to the interests of lumbermen.—*Minneapolis Tribune.*

### Lumbering.

The Port Hope *Times* says:—"Messrs. Thomson & Son, of Peterborough, have entered the settlement in the vicinity of Janetville, with a large gang of men, and are clearing the woods around there of all the valuable pine, for which they are paying very high prices, going as high as $25 and very seldom less than $10 a tree. In this settlement they have got 13 ship masts ranging from 72 to 85 feet long, for which they paid a very high price, and the square timber is of the best quality. They have a large number of teams employed hauling the timber to Franklin station. A large sum of money has been spent by this firm in Manvers."

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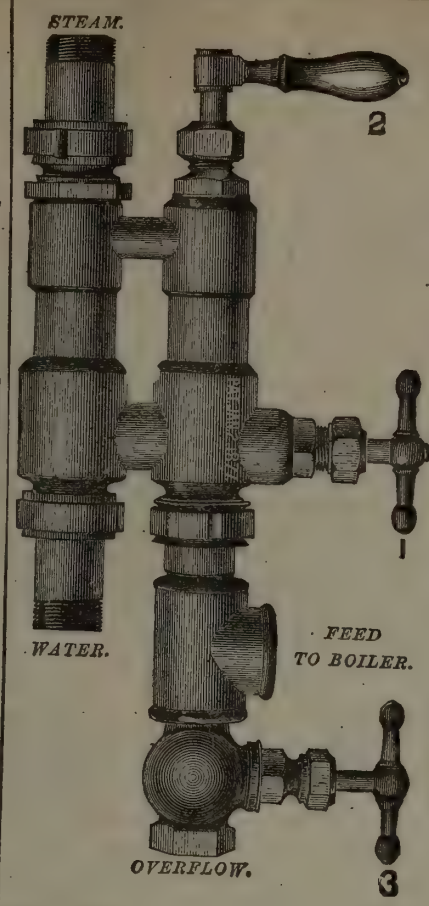


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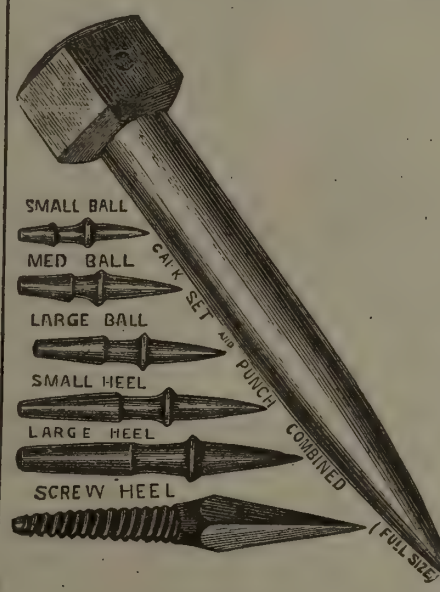


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# CALKS

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**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

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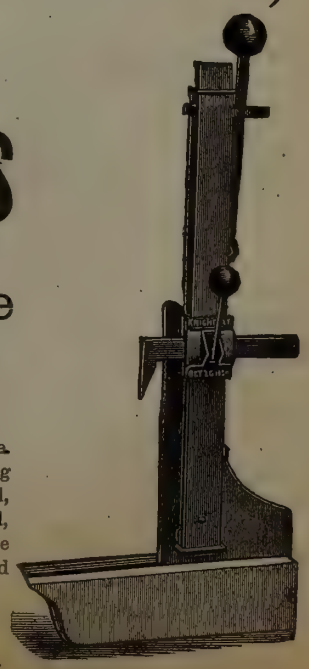
**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

Manufactured by HUGH GIBSON, CHATHAM.



EXCELSIOR DOG.

## AMERICAN LUMBER RAFTS.

The first recorded arrival of a raft of white pine lumber at St. Louis was in the spring of 1840, says the *Lumber World*. The raft was run by twenty men and contained 800,000 feet of lumber. The fleet came from near the mouth of the Wisconsin river and was thrity-five days in making the trip. The history of rafting on the Mississippi, however, antedates this period. It goes back to 1831-32. In those days all the rafting was done within 300 miles of the city. E. O. Shepardson, possibly one of the oldest Mississippi river raft pilots, gives it as his opinion that the first lumber raft arrival at St. Louis was in the spring of 1835. He describes the raft as having been 100 feet in length, 30 feet wide, and carrying 150,000 feet, The lumber was yellow pine, cut and rafted in the Gasconade river, about 125 miles from the mouth. The distance from there to St. Louis was 250 miles, and the time required in making the run was seven days. Up to 1840 the principal lumber arriving here in rafts was yellow pine and hardwoods. From 1835 to 1840 the receipts ranged anywhere between 1,500,000 and 3,000,000 feet per week.

In 1840 the receipts of white pine lumber aggregated 3,000,000 feet. The rafting business from that time on had a most remarkable growth, and the following two years numerous saw mill men of the North followed the example of the pioneer raftsmen, and the result was that hundreds of men were furnished with work in new field, and the upper river was continually filled, in season, with moving rafts. In 1842, two years after arrival of the first fleet of white pine lumber, the receipts aggregated 75,000,000 feet, which gives a well defined idea of the rapid increase in the interest. The growth continued with each season until 1860, when the rafts landed 200,000,000 feet of white pine lumber at the North St. Louis landings. During the four years following there was a slight interruption, the result of the civil war. The urgent demand for lumber, however, during that bloody period, brought many new capitalists into the business, and some of them retired, after the war, with large fortunes. From 1865 to 1872-3 the raftsmen saw their best days. In 1866 the Schulenburg & Boeckeler Lumber Company invented a patent steam windlass, which enabled a steamboat to handle a raft of from 1,000,000 to 3,000,000 feet. This invention brought with it a great reduction in the cost of running a raft, reduced the danger of wrecking it, and also reduced the number of men required to handle it. The Mollie Whetmore was the first steamer to attempt to run a raft in this way, and she proved a success. Other steamers followed in the business, and last summer there were 100 boats employed in the trade, the aggregate value of which is put down at $1,000-000.

The average raft boat carries a crew of 18, which includes the mate and captain. A good stout raft boat is able to push a fleet containing as much as 3,500,000 feet of lumber. To move this vast quantity of lumber by rail would require seven trains of fifty cars each. The time necessary to tow such a raft from La Crosse, Wis., 700 miles north, to St. Louis, is generally fourteen days, although runs have been frequently made in less time. Nearly all the white pine lumber received in St. Louis comes from the Wisconsin, Black, and Chippewa rivers. The rafting season opens in the spring as soon as the ice runs out. The first raft of the season, from the Upper Mississippi, usually arrives here at the beginning of May, and the season winds up about November 15th. The local season, however, has been known to extend into December. With the advent of raft boats, the days of floating rafts reached their end, and the business to day, compared with its former greatness, is but a shadow, there being very few floating rafts now seen. Where it formerly required two months' time and 35 men to run a raft from Wisconsin to St. Louis, a steamboat now does the work in fourteen days, with the aid of 18 men, thereby reducing the cost more than one half. In the best days of floating rafts the cost of running one from Reed's Landing or Stillwater to St. Louis would reach as high as $6,000.

From 1865 to 1870 lumber rafts were frequently taken as far south as Memphis and Vicksburg. Now not more than two rafts in a year go south of St. Louis, and these only as far as St. Mary's and Chester. The longest distance ever run by a raft on the Mississippi was from La Crosse, Wis., to New Orleans. The trip was made in 1870, and this lumber raft was the only one that ever went to New Orleans from the Upper Mississippi. The fleet was made up of ten strings, or about 1,100,000 feet. It was owned by the Gruner Brothers' Lumber Company, and was valued at $30,000. Mr. E. O. Shepardson, at present raft superintendent of the Ganahl Lumber Company, piloted the fleet as far out as Vicksburg, where a Lower Mississippi pilot took charge. The run from La Crosse to New Orleans was made in ten weeks. There are eight regular raft boats coming to this port which bring in each season about 150,000,000 feet. This does not include what outside steamers tow in here, which swells the figures to 200,000,000 feet. The principal lumber landings are located in North St. Louis, and take in the principal part of the wharf from North Market Street to Bissell's Point. The landings are controlled by the Knapp, Stout & Co. Company, Eau Claire Lumber Company, Gruner Brothers' Lumber Company, Henry Lange, the Schulenburg & Boeckeler Lumber Company, and I. G. Buckley. The landing in the southern part of the city is in charge of the Ganahl Lumber Company.

These are dry details that do not by any means suggest the departed greatness of the days of floating rafts. The captain of a fleet was, as it were, monarch of all he surveyed. He was the political, religious and civic boss of the men in his employ, and he lorded it over them in a majestic, but, at the same time, quite a humane way. Usually a man of magnificent build, the shagginess of his exterior gives no idea of the bigness of his heart. Heavy-bearded, top booted, and filled with the bracing health of the pineries, his presence inspired awe for the moment, but as soon as his mouth opened and the pleasantness of his coarse voice fell upon the ear, the feeling of sublimity gave way to one of admiration, and soon he held your heart in his hand. There were, of course, some rough captains in the old days, but they have quite perished out of memory, and only the agreeable characters remain behind.

There were many exciting times in the lives of the old rafters. When they made the shoot of the rapids there was danger in their positions, but, just like the men who court death in the log booms, these old chaps braved any danger, and their days and nights were often full of the enthusiasm and excitement that are born of the proximity of trouble. There were not, as a matter of fact, many such thrilling experience as that related by the literary liar who wrote the "Pike County Folks," but there were some almost equally interesting. Shooting the rapids was frequently the least dangerous of their exploits. Pulling the channel or steering shy of a bridge called for as much care and coolness of nerve as any other effort put forward by the raftsman. The forward sweeps had to be worked with great skill, as the slightest error of judgment or misapplication of strength might prove fatal to the rafter and injurious to the fleet. The cook was the canonized saint of the party. The sound of his dinner gong was sweet and welcome to the raftsman's ear, and it always got a kind greeting from an overwhelming appetite. The cook's hut, with its V shape, its smoking stove-pipe and bough-trimmed apex —the temple in which about the only worship the rafters knew took place. Here they worshipped three times a day regularly. The culinary high priest took pleasure in tickling the palates of his devotees, and when at work, whether peeling potatoes on the shady side of his hut, or stirring the huge pots of boiling meat, kept their individual and collective tastes in view, and tried to make the meals and meal hours pleasureable to all. The time past so agreeably that it was really felt to be a moment of sadness when the "breaking-up" came and the rafts were picked to pieces, to be piled away in the lumber yards. Then their came the partings for awhile, often for ever, for in the early days raftsmen were as human as men are now and had their frailties. Whisky often brought on fights, and then the knife and pistol came into play. Many a rafter died a violent death, and the story of his taking off furnished half-hours of gossip on future trips for those who had known and associated with the unfortunate fellow.

## VALUE OF BAND SAW BLADES.

That a good blade is cheap at any price and an inferior one is dear, are propositions which no one with experience will dispute. To this we may add that a good blade operated on a properly constructed machine has a capacity for wear, and will do more work than the "same value" represented in a circular saw. The purchaser cannot, from the appearance of a band saw blade, tell much of its quality or temper, nor can he do so by experiment without injuring the blade, and he must therefore depend mainly upon the good faith, reputation and experience of those from whom he purchases.

In order to have good work done, it is absolutely necessary that the saw should be kept perfectly true in every respect.

To keep saws true, the points of the teeth, just before filing, should be jointed with a stone or emery brick.

Then comes setting. This should be produced by blows and not by bending. Setting by a blow, with the proper kind of a machine, is done very quickly and the teeth are set perfectly uniform.

Then, after setting, if the saw is touched up with a file, it will be in good order.

Now, as to the use. Do not attempt to use a small circle with a wide blade. Keep your saw sharp, with a good set in it, and you will get good wear out of it.—*The Wood-Worker.*

## INDIFFERENT LENGTHS.

"Speaking of tricks in inspection," said Mr. Western Millman, "I was in Boston once, and dropped into the office of a hardwood dealer that I had some acquaintance with in a business way. While I was sitting in the office word came that there was five cars of walnut on the track from Mr. John Jones, of Jonesville, in a western state. Mr. So-and-so called up the surveyor general's office on the telephone and asked the party at the other end of the line to send 'Dick' over to inspect the walnut.

"The next day I went up into Vermont to visit some friends, but in a little over a week struck Boston on my way home, and stepped into Mr. So-and-so's office again to see if I couldn't sell him some lumber. While I was there who should bounce in but Mr. Jones, of Jonesville. It seems that he had received the report of Dick's inspection of that walnut, and it was so unsatisfactory that he determined to go to Boston and investigate the matter for himself. He waited not on the order of his going but went.

"And he was mad. As I said, he bounced into Mr. So-and-so's office, and opened up on him at once, without the ceremony of an introduction. He would be dashed if he would stand such dashed robbery. He wouldn't take any such money for his good lumber, and wanted his lumber back and was bound to have it re-inspected. Mr. So-and-so talked very suavely to him, told him that the lumber was inspected by a sworn surveyor who was under bond to make a true report, and that there could be no material difference between the report sent and a new survey.

"That didn't have any effect on Mr. Jones. He demanded the return of his lumber, and adhered to his purpose to have it resurveyed.

"Mr. So-and-so made various ineffectual offers of compromise, and finally took back his check and transferred the lumber to Mr. Jones. Jones then went out, but he had no sooner got the door shut than Mr. So-and-so turned to his partner and said, 'I have got to be away this afternoon. Won't you step over to the surveyor general's office and tell him to put Dick on that job when Jones gets around there?'

"I suppose they did not think I heard the remark; but they did not make any great effort at secrecy and besides they would not remember that I had any previous knowledge of the transaction.

"I am not given to interfering with another man's business, but the more I thought of this the more I wished I could find Mr. Jones and tell him what I knew. I got back to my hotel just in time for supper and went into the dining room and sat down at a table. I was thinking how I could find out where he was stopping when who should take a seat right opposite me but Mr. Jones himself. I introduced myself to him by saying I was so unfortunate as to be a western hardwood manufacturer as well as himself, and that though he did not remember me, I was in So-and-so's office when called that afternoon. Then I told him all I knew and advised him to go around to the surveyor general's office in the morning and demand that another man be put on that job in place of Dick, who had already been assigned to it.

"He asked me to go around with him to see how it came out. I agreed, with the understanding that he was not to disclose his real reason for wishing the change. Well, to make a long story short, when he made his request for a change of inspectors, the surveyor general was much surprised; said there could be no material difference; all the surveyors were under oath, etc. Mr. Jones said that it was a personal matter with him; he had had a personal difficulty with Mr. Richard———, and that if all the surveyors would give the same inspection it could make no difference with the result or with the office. The general said that certainly that if it were merely a personal difficulty he could have another man; and then assigned a surveyor waiting in the room to the job in place of 'Dick.' The new inspection was very satisfactory to Mr. Jones. It gave him about $250 more for his lumber than the origina inspection."

This is a true tale by one who was there.—*Northwestern Lumberman.*

## THE CENTIPEDE IS QUICK.

Several Mexicans were in camp at the mouth of the Medina river in Texas, and were lying about the fire, when one of them, Selestro Cruca, saw a large centipede, fully nine inches long, travelling slowly over his leg. Knowing that the least motion would make it sink its claws into his skin, without moving his leg, he got out his revolver and waited until the insect had almost reached his knee, slowly putting the mouth of his pistol to its head, he pulled the trigger, and the centipede was gone. But the centipede's claws are quicker than gunpowder, and Cruca began to cramp in a few minutes. The trace of the insect along his leg turned a brownish yellow, and the place where it was killed swelled up frightfully. Cruca rapidly grew worse, and in a little over four hours afterwards he died in great agony. But the most singular part of the story is that the bullet from Cruca's revolver cut a small nick in the foreleg of a mule that was tethered near by, and at daylight the next morning the mule was also dead, with the leg so swollen that the skin had burst in several places.—*Laramie Boomerang.*

## A Singular Discovery.

While making improvements on land in Carver, Mass., a singular discovery was recently made. The workmen distubed a small spring and some days afterward it was found to be throwing out a light substance, which on being examined, proved to be very fine silica. It was tested for polishing purposes and found to be excellent for cleaning silver, leaving not a scratch and giving a beautiful surface, The spring makes considerable deposit in a day. Examination proves that there is a large quantity of the silica, and other small springs have been struck, which can be made to discharge if given vent.

**It is Really Consumption?**

Many a case supposed to be radical lung disease is really one of liver complaint and indigestion, but, unless that diseased liver can be restored to healthy action, it will so clog the lungs with corrupting matter as to bring on their speedy decay, and then indeed we have consumption, which is scrofula of the lungs, in its worst form. Nothing can be more happily calculated to nip this danger in the bud than is Dr. Pierce's "Golden Medical Discovery." By druggists.

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**124 AND 126 QUEEN STREET, - - - MONTREAL.**

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

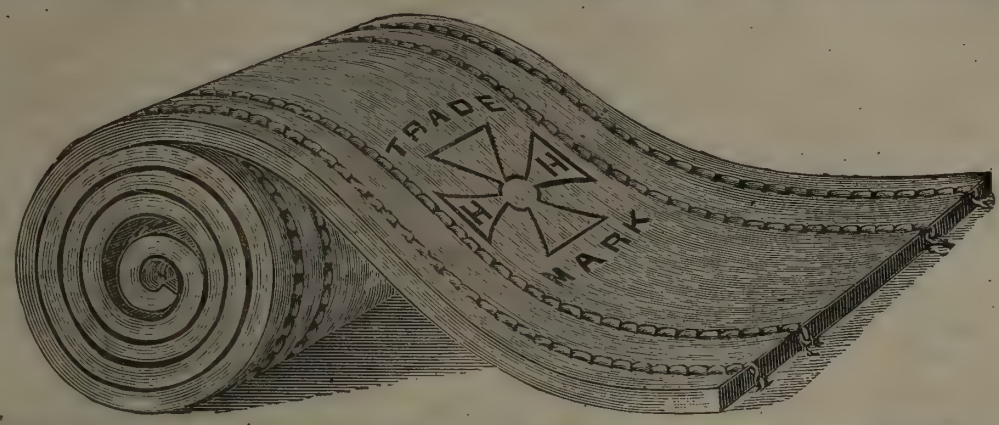
TESTIMONIAL.

IRA GOULD & SONS, CITY MILLS,
Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




TESTIMONIAL.

PECK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to an belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.


### THE TEETH OF FRICTION.

In well constructed gear wheels, or gears with teeth in perfect mesh, there is but very little of that crowding action that tends to set the wheels apart or increase their distance between centres. In fact, they can be made to draw the wheels together by leaving the faces of the teeth of the driver as well as the flanks of the driven wheel of greater length than the remaining portion of the gear teeth; but in the teeth of friction this irregularity in construction is entirely done away with. They are not laid out in any regular order, and are of varying lengths without any regard to the pitch line or the shape of the gear teeth. The cycloidal forms and involute curves are entirely left out of the calculation; in fact, they are so flat that to keep their working sufaces in contact, and to hold them in mesh while the teeth are engaging with each other, requires a greater force than they are capable of driving. Besides, the teeth are liable to strike end to end as to fall within the spaces between them, and however they may strike, they are as likely to crowd each other forward or backward, producing a slip or a creep in the different portions of the surface of contact; and should this working surface remain at rest for a moment, these interlacing and irregularly arranged depressions and markings that form the teeth of friction settle into their places and increase their clinging power—as may be noticed in the starting force of friction—till they are thrown out of place in the sliding of one of these frictional surfaces upon the other. A locomotive weighing forty tons represents the forces with which these teeth crowd apart or are held in contact when a draft of ten tons is obtained, to be used in drawing the train, and are the means by which the drivers cling to the rail and friction wheel that transmit the power, not by gear girth, but by the teeth of friction.—*Industrial World.*

* * * Delicate diseases, affecting male or female, however induced, speedily and permanently cured. Illustrated book three letter stamps. Consultation free. World's Dispensary Medical Association, Buffalo, N. Y.

### OVERLOADED ENGINES.

There is a heavy responsibility resting somewhere on this overloaded engine business. There must be a halt called somehow and somewhere. It might as well be to day as after more lives are sacrificed, and the only way to know where we are is to ascertain carefully. There is no sort of use in risking human life—not only one, but dozens or hundreds in some cases—within reach of an engine that is liable to let go on account of having been overloaded, and perhaps scatter the fly-wheel all over the place, to say nothing of breaking off large steam pipes and scalding people. The judges tell us that diligence must be exercised on the part of the owner and proprietor of all these apparatus, and until that is done to the satisfaction of the court, then a responsibility exists, and it is a serious one in case of loss of life. In fact, the law is very plain on this point, very simple, and entirely too comprehensive for those who seek to evade it by supposing or ignoring. The cases in question will be anxiously watched by all menufacturers and users of steam power.— *Manufacturers' Gazette.*

### Roofing Board.

The *Paper Trade Journal* says:—A board for roofing purposes is made from pulp made up of wood fibre, asbestos fibre, or any other mineral fibre, and suitable clay, in the proportion of six-tenths, three-tenths, and one-tenth respectively, which pulp is thoroughly mixed together and is then formed into sheets or boards by rolls or in a press, and is then dried. When thoroughly dried, and either before or after the boards are applied to roofing or other purposes, they are coated or saturated with asbestos, asphaltum, or any other fibre or waterproof paint. By this combination of ingredients the boards will be pliant and will not readily split or break, and at the same time will be practically fire-proof.

**I had a Dreadful Cough,** and raised a considerable amount of blood and matter; besides, I was very thin, and so weak I could scarcely go about the house. This was the case of a man with consumption arising from liver complaint. He recovered his health completely by the use of Dr. Pierce's "Golden Medical Discovery." Thousands of others bear similar testimony,

# McCOLL BROS. & Co.

## TORONTO

Manufacturers and Wholesale Dealers in Machine and Illuminating Oils.

## Our Celebrated "Lardine" Brand

***Is Unexcelled by any other Machine Oil on the Market.***

## MILL MEN WILL SAVE MONEY!

***By using "LARDINE." Wears equal to Castor Oil and ONLY COSTS HALF THE PRICE.***

CYLINDER And other Oils, all of splendid quality always in Stock. ☞Prices. etc., on application to

16tf.4 ***McCOLL BROS. & Co., Toronto.***

# H. WILLIAMS,

## SLATE & GRAVEL ROOFER

MANUFACTURER OF AND DEALER IN

Tarred Felt, Roofing Pitch, Sheathing and Building Papers, Carpet an Rosined Waterproof Paper, Ready Roofing, &c. ☞All orders promptl attended to at LOW PRICES.

H. WILLIAMS,
4 Adelaide Street East, Toront

17

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

APRIL 9.—Trade is yet quiet. Winter is holding its grip so firmly on the spring that all outside work is kept back. Considerable lumber is, however, arriving here from various points. Quite a number of cars from Ottawa via the C. P. R. have come to hand during the past week, comprising chiefly 1¼ and 1½ in. cut up, which is not plentiful in northern section of country. Prices rule low in consequence of the outdoor work being kept back, dealers and others do not wish to buy to any extent until a demand springs up.

Mill men are all looking for a considerable advance on last year's prices, but it is a doubtful question if they will be able to secure it except on bill stuff, which will rule higher than last year in all probability. It is more than likely, however, that the present troubles in the Northwest, unless speedily settled, will exert a disturbing influence on the building trade here during this summer. Some who intended having buildings erected this spring are now away with the troops, and all preparations that were under way are stopped, and it is extremely probable may not be resumed this season. A considerable number of carpenters and other artizans are also gone to the front, all of which tends to unsettle trade, and may, to a large extent, spoil the anticipations formed for a good season's work. Of course this of itself will not affect the prices of the better class of lumber, of doubtless there will be a sufficient demand from the other side of the lake for that description of lumber, but our home market has to assume most of the lower grades or it will remain on the mill men's hands, as under the present duty enacted only a small portion of the lumber finds its way over the lakes.

Lath is in fair demand, quite a quantity of which is needed to complete contracts left unfinished from last fall.

Navigation will open late here, it is doubtful if any vessel will leave our harbour with cargoes before the 1st of May.

| | |
|---|---|
| Pine cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Shipping up planks to dry | 24 00 |
| " boards " | 20 00 |
| Common dressing stocks | 18 00 |
| Am. inspection | 28 00@30 00 |
| Uppers, Am. inspection | 35 00@40 00 |
| | B. M. |
| Clear flooring, dressed | 30 00 |
| " " rough | 16 00 |
| " " dressed | 25 00 |
| " " undressed | 15 00@15 00 |
| Siding, dressed | 22 00 |
| " undressed | 16 00 |
| Second Sheeting, dressed | 22 50 |
| Barding, dressed | 14 00 |
| Common shingles, M | 2 90 |
| Lath | 2 75 |

## BOSTON.

*Journal of Commerce* of April 4th says: Business is moving along very quietly, as the season continues backward and unfavorable to outdoor operations. The general tone of the market is steady and unchanged. Pine just now holds its own. Spruce is steady. Southern pine as before. In hardwoods there is a little bnsiness doing with no change to note prices.

CANADA PINE.

| | |
|---|---|
| Extra dressed | $48 00@50 00 |
| Dressed, 1sts | 40 00@42 00 |
| " 2nds | 33 00@35 00 |
| Clear shippers | 27 00@29 00 |
| Box | 18 00@20 00 |
| Mill run, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## MONTREAL.

*From Our Own Correspondent.*

9.—The spring trade in lumber is still and is fully one month behind. This ed for by bad weather and the fearful our streets. Considerable quantities ordered ahead, but not delivered, and many orders which were booked for delivery on the 1st of April have been postponed till the 1st of May. Stocks are ample and so soon as locomotion is good there will be quite an active movement in lumber. Prices are steady and unchanged in value and concessions are difficult to obtain. We quote ex yard as follows:

| | |
|---|---|
| Pine, 1st quality, M | $35 00@40 00 |
| Pine, 2nd " M | 22 00@24 00 |
| Pine, shipping culls, M | 14 00@16 00 |
| Pine, 4th quality deals, M | 10 00@12 00 |
| Pine, mill culls, M | 7 00@ 9 00 |
| Spruce, M | 10 00@13 00 |
| Hemlock, M | 9 00@10 00 |
| Ash, run of log culls out, M | 20 00@25 00 |
| Bass, " " M | 12 00@18 00 |
| Oak, M | 40 00@50 00 |
| Walnut M | 60 00 100 00 |
| Cherry, M | 60 00@80 00 |
| Butternut, M | 25 00@35 00 |
| Birch, M | 20 00@25 00 |
| Hard Maple, M | 25 00@35 00 |
| Lath, M | 1 75@ 2 00 |
| Shingles, 1st, M | 3 00@ 0 00 |
| Shingles, 2nd, M | 2 50@ 0 00 |

CORDWOOD.

Stocks are pretty full, but the near approach of the opening of navigation renders holders not quite so stiff in their askings, and good wood can now be bought at less money than at the date of our last report. Business has been rather dull. We quote at the railway station ex cartage:

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

We cannot alter quotations. Trade has revived since our last report, a very fair demand for stocks of the better grades, and on inquiry we find the assortment is very much broken, and dealers are getting some from Michigan and Canada by rail to keep along until navigation opens, which, from present appearance, will not be much before 20th inst.

| | |
|---|---|
| Three uppers | $44 00@46 00 |
| Picking | 34 00@36 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 0 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ¾-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ¾-inch | 30 00@32 00 |
| Ash, good, M | 40 00@43 00 |
| Ash, second quality, M | 25 00@30 00 |
| Cherry, good, M | 60 00@85 00 |
| Cherry, common, M | 25 00@30 00 |
| Oak, good, M | 40 00@43 00 |
| Oak, second quality, M | 20 00@25 00 |
| Basswood, M | 25 00@30 00 |
| Hickory, M | 40 00@40 00 |
| Maple, Canada, M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, M | 38 00@40 00 |
| Shingles, shaved, pine, M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 00@ 4 00 |
| " clear, " | 0 00@ 3 50 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LIVERPOOL.

The *Timber Trades Journal* of March 28th says:—The appearance of the timber trade docks has been very dull during the past week, few ships discharging cargoes, and the number of idle teams waiting employment on the quays shows how little is doing in the way of orders for the country. This is also borne out by the deserted appearance of the railway depots and the water carriers' wharves.

With no public sales of whitewood to arouse even a passing interest, the continuance of such a lifeless condition of matters is depressing indeed, and next week will in all probability be similar, as the Easter holidays will have some influence upon what business there is.

The preamble of the bill for constructing a subway under the Mersey to connect Liverpool and Birkenhead having been proved, this work will, no doubt, be pushed forward as soon as the bill itself has passed the Houses of Parliament, as there is little doubt the necessary capital will readily be subscribed. This project, if carried out successfully, will form a means of communication between Liverpool and Birkenhead, not only for predestrian but heavy vechicular traffic, for which, admirably suited as they are for light conveyances, the present ferryboats are unable to cope. Thus heavy log timber, which now has to be first conveyed in carriages to be loaded in barges, and towed across the river at certain times of the tide, will, in future, be taken by the subway or tunnel by means of the customary trams or wagons, with a saving of expense in handling, and at any time that may be desired. The engineering difficulties will not probably be great. The success in boring the Mersey railway tunnel, now completed, shows the rock beneath the bed of the river to be sound and easily worked.

In consequence of the advance in freights from the pitch pine ports shippers are now unable to sell at the recent low prices, and many orders at the late rates have had to be passed by on this account.

## CHICAGO.

AT THE YARDS.

The *Northwestern Lumberman* of April 4th says:—A steady-going fairly good trade is prevailing so far as volume is concerned. The general report is to the effect that the outward movement in the aggregate is heavy, but that prices are unsatisfactory. An analysis of the complaint in regard to prices develops that they are not weaker than they were a month ago, but are lower than the merchants would like to see them. The selling value of yard lumber is not a sufficient advance from the figures at which stock was laid in last season. The margin out of which to pay expenses and have a profit besides is too thin for the purpose. This seems to be the cause of the complaint. The condition in this respect is different from what calculated on at the close of the last receiving season, and at the beginning of the year, when, as will be remembered, there was much "big talk" about firmness. The extreme dullness of January, followed by the disappointment at the meagerness of February business, as a result of the severity of the weather, caused the holders of lumber to grow weary of waiting, and naturally relax their grip on values. Then came annual "selling out" evil which does more than anything else to demoralize prices in March. In view of what has transpired since January 1, we can easily arrive at the reason why prices have sagged since that date. But speaking from the present standpoint it is probable that prices are now fairly steady, though there is still a range of considerable width in selling prices between yards, that narrows down when the bills are made to the country. Certainly there is no reason, that can be clearly defined, why there should be further weakness in the value of dry lumber. There is much talk about the immense stocks over the lake, but it does not appear that the holders of them are making extra effort to sell. Inquiry fails to find that the manufacturers are importuning yards here to buy. It must be seen that navigation cannot open early, and that probably there will be few arrivals, if any, before April 25. By that time dry stocks in the yards will have become seriously broken, and that too, in the midst of the spring trade, when dry stocks are most wanted. The local carpenters' and builders' requirement has started in with much vigor, so that this branch of trade will materially conduce to the depletion of stocks before lumber begins to arrive by lake. Altogether it appears likely that there will be a lively scramble after the first cargoes of dry lumber, which will help the commission men to keep up prices. On this account, the part of business wisdom would seem to be for the dealers to realize as much for their lumber as they can between now and the opening of navigation.

Receipts of lumber, shingles, etc., from Jan. 1st to April 2nd as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 4,790,000 | 1,128,000 |
| 1884 | 4,686,000 | 901,000 |

FROM JANUARY JAN. 1, 1885, TO APRIL 2, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 44,308,000 | 10,836,000 |
| 1884 | 66,671,000 | 8,952,000 |
| Increase | | 1,884,000 |
| Decrease | 22,363,000 | |

STOCK ON HAND MAR. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 557,582,664 | 476,574,238 |
| Shingles | 324,267,100 | 333,406,497 |
| Lath | 50,674,489 | 48,006,464 |
| Pickets | 2,182,857 | 2,515,647 |
| Cedar posts | 259,199 | 289,742 |

FREIGHT RATES TO EASTERN POINTS.

In effect from Nov. 13th, 1884, to March 31st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

| | |
|---|---|
| Chicago to— | |
| New York and common points, per 100 pounds | 30c. |
| Albany | 28c. |
| Boston and common points | 36c. |
| Philadelphia | 21c. |
| Baltimore | 27c. |
| Washington | 27c. |
| Buffalo and Pittsburgh | 17½c. |
| Erie, Pa | 17½c. |
| Dunkirk, N. Y | 17½c. |
| Troy | 28c. |
| Shenectady | 28c. |
| Wheeling | 17½c. |

## AUSTRALIA.

The monthly circular of Messrs. Lord & Hughes, dated Melbourne, Feb. 11th, 1885, says:

The last month has been only a repetition of the previous one, receipts being largely in excess of requirements in nearly every description of timber, and sales in a measure forced against a supplied trade, the consequences being lower prices and a dull market.

We can see no encouragement in the immediate future for importers, the trade being fully supplied, stocks in importers hands large, and expected arrivals heavy.

Business from the yards continue fairly active, and we look for no diminution in demand.

RED DEALS.—Imports: 539 standard, 37,086 pieces. The arrivals have been—Hermann, from Sundswall; Ephialtes, from Arendal; Guldregn and Passat, from Soderham. Sales by auction have been a portion of cargo ex Forfarshire, and shipment ex Svea. The cargo Frigga was offered at auction yesterday, but there being no disposition on the part of the trade to buy, was withdrawn.

SPRUCE DEALS.—Imports: 093 pieces. These arrived per Antioch, from Boston, and are advertised for sale on 13th inst. The Lake Leeman, from Quebec, has just arrived, but her quantities do not appear in our imports. The cargo ex Prince Frederick and balance ex Prior Hill was all cleared off at auction on 6th instant.

OREGON TIMBER.—Imports: 1,403,379 feet super. The arrivals have been, Coronae, from Tacoma; Williard Mudgett, from Burrard Inlet; Beulah, from Port Townsend; and Remijio, from San Erancisco. The first mentioned three cargoes have been quitted publicly. The latest sale being ex Beulah on 3rd instant, at prices ranging from £6 5s. to £5 10s.

LUMBER.—Imports: Clear pine, 188,867 feet super: white pine shelving, 146,951 feet super; T. and G. ceiling, 76,858 feet super. The arrivals have been Antioch from Boston, James Pendleton and Highlands from New York. The small parcel ex James Pendleton was sold at auction on the 3rd inst., and shipment ex Antioch is advertised for sale on 13th inst. Other public quittances have been ex Eastern Monarch, Jupiter, S. F. Hersey, Prince Frederick and Prior Hill.

REDWOOD.—Imports: 126,000 feet super. This parcel arrived ex Remijio, from San Francisco, and has not yet been offered at auction. The only public sale has been portion of parcel ex Estella, at £9 to £9 5s.

FLOORING AND WEATHERBOARDS.—Imports: 2,647,656 feet lineal. The arrivals have been—Zenobia and Wilhelm from Drammen, and Java from Gothenburg. Sales have been ex Waaland, Regina, Svea, Ole Moller, and of spruce flooring ex Prince Frederick. Prices realized are as follows:—Red, 6x1½, 11s. and 10s. 6d.; 6x⅞, 8s. and 7s. 6d.; 6x¾, 5s. 6d. and 5s. 3d.; 6x½, 4s. 8d.; 4-out weatherboards, 5s. 9d; white, 6x1½, 8s. 3d. and 8s.; 6x⅞, 7s. 6d. and 7s. 3d.; 6x¾, 6s. 5s. 3d.; 6x½, 5s. to 4s. 9d.; 4-out weatherboards, 5s. 9d. and 5s. 6d.; spruce, 6x⅞, 6s. 6d. and 6s. 3d. Since writing the above, the Arthurstone, from Montrose, has arrived with flooring.

KAURI PINE.—Imports: 1,066,485 feet super. The arrivals have been—Grassmere, Eillan Donan, and Jules Marie, from Kaipara; Mary Blair, from Hokianga; Cabarfeidh, from Mongonui. The cargo ex Grassmere has been sold privately. Sales by auction have been—cargo of logs ex Killarney, flitches ex Jules Marie, and portion of logs ex Claribel. The cargo ex Cabarfeidh was offered on 10th inst., but the trade showing no inclination to buy, was withdrawn.

CEDAR.—Imports: 48,300 feet super. The arrivals have been May Newton from Ballina, and steamers from Sydney. There have been no sales by auction.

DOORS.—Imports: 650. Sales have been made publicly of various parcels of American doors, ex Mohican and Antioch.

LATHS AND PICKETS.—Imports: Laths, 5,306 bundles, pickets, 2,717 bundles. Sales have been by auction of various descriptions.

SLATES.—Imports: 306,456. Imports continue heavy.

PLASTER.—Imports: 1,028 barrels. King's Windsor Mills plaster has been quitted publicly at 12s. 9d. and 12s. 6d. per barrel.

CEMENT.—Imports: 9,268 barrels. A moderate demand privately is reported, Knight, Bevan, and Co.'s and Gostling's being quoted at 14s. 6d. and 14s. 3d. respectively. There have been no sales by auction.

GALVANISED IRON.—Imports: 1,502 tons. Sales at auction have been confined to small damaged parcels, and cannot be taken as any criterion. Privately, favorite brands are quoted at £18 to £18 12s. 6d.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3; T. and G. flooring at per 100 feet running; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 ft. super; Kauri pine and cedar logs at per 100 feet super; laths, pickets, and slates at per 1,000 pieces. Shorts are lengths under 12 feet.

## LONDON.

The *Timber Trades Journal* of March 28th says:—Things this week look a bit more cheerful. The deliveries of deals have taken a forward movement, and though it may be only a flash in the pan, it may nevertheless prove the precursor of sustained activity.

There was a very numerous muster of the trade at the saleroom on Thursday, and the crowded benches seemed to give promise of better prices. It was expected that the unfavorable reports from Afghanistan would have stimulated bidding, but the sign of any activity did not come very prminently to the surface; at least, it was very difficult to trace in the low bids at which the majority of the goods started.

The 3rd Quebec white pine deals, Montmorency stock, ex Lydian were, we understand, sea damaged, having, we believe, been picked up from the wreck of the Marco Polo off the Canadian coast in 1883, and subsequently shipped from Miramichi per the first-named vessel. Taking this into consideration, the price obtained was, we consider, a good one.

Among the bargains were the 4th pine boards ex Drammenseren Quebec, and at £6 15s. these were cheap to the purchaser, but being coarse-looking they are not particularly saleable just now, though at the prices they will pay to hold.

The mixed goods throughout fetched full prices, but this was no surprise as regards planks; but with 9 in., however, a slight improvement could be recognized. The common Swedish stuff offered met with a poor reception, the trade displaying no anxiety to acquire such goods, except at give-away prices. Of these the Neder Calix 4 in., 3rd, a very coarse parcel, were difficult of sale at £6, though prices for really sound wood, even if classed common, were not weaker. The Skelleftea 3rd battens ex Douglas fetched a remarkably good price, and the same may be said of the Domsjo ex Eustace 4th deals, with a big proportion of six to nine feet, changing hands at £8. Spruce prices, by the result, do not appear to have hardened at all, the 1st quality Quebec planks ex Romeo, falling at £8 5s., and 9 in. at 20s. less. 2nds of the latter size being knocked down at £6 10s. These were described as remaining after selection, but to judge by appearances the pile did not seem to have been disturbed since they were first stacked. The Gefle ex Black Sea S P 3x9 were cheap at £10 15s.; were cheap being a very fair class deal a bit sappy.

### An Old Quebec Trader is Luck.

An important salvage claim by a Newcastle steamer has just been decided by the Admiralty Court. The claim for salvage reward was brought by the owner of the screw steamer Clevedon, of Newcastle, against the owners of the screw steamer Carranze, of Bilbao, which had sprung a leak at sea. The crew and steamer had been saved under trying circumstances. The Court awarded £5,000 apportioned as follows:—Second officer, £600; others of the crew, £1,600; divided amongst the owners of the Clevedon £1,800; Captain Robert Blance, £300, and the remaining £1,700 divided amongst all the crew.—*Shields Gazette.*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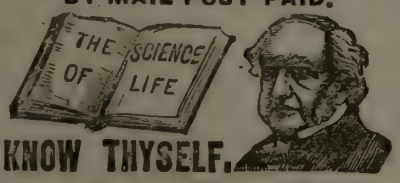


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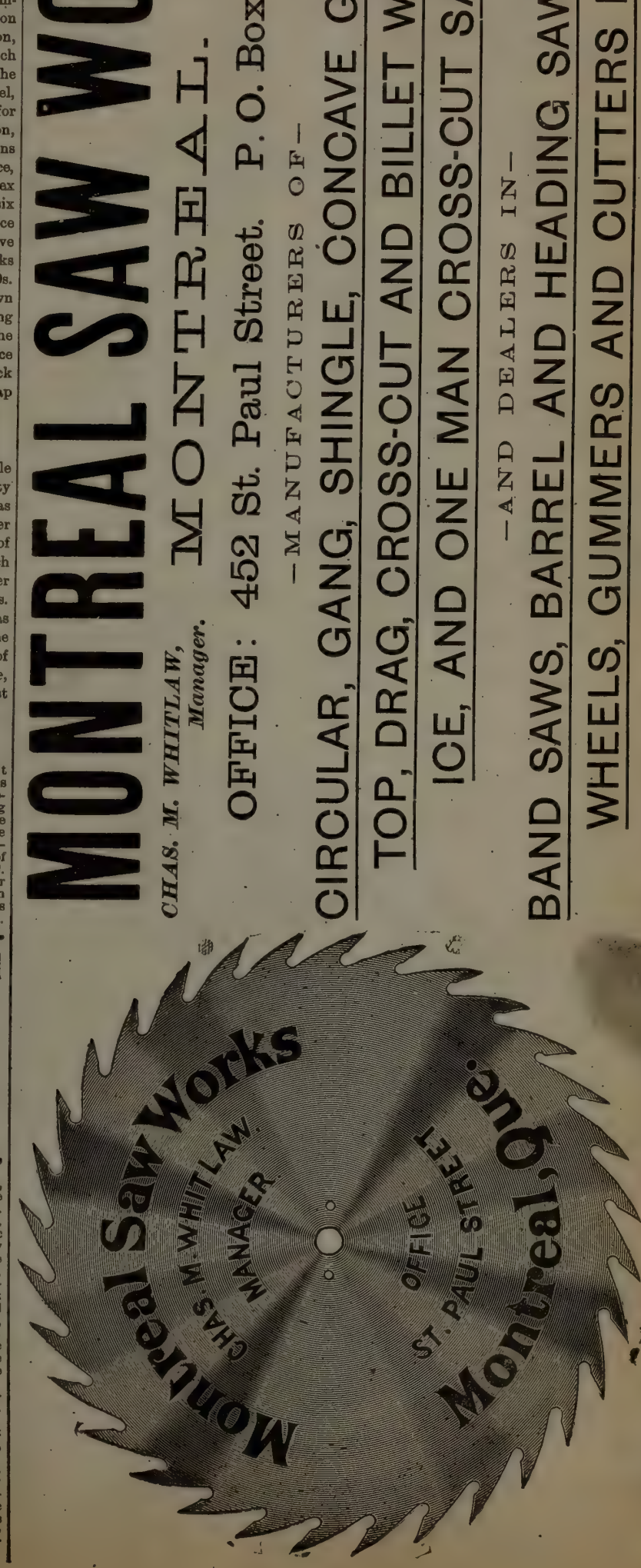


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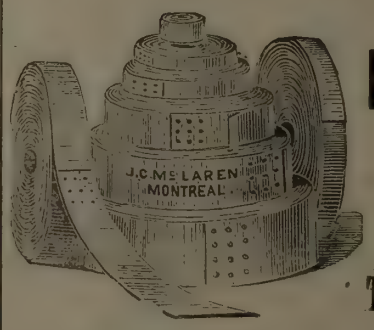


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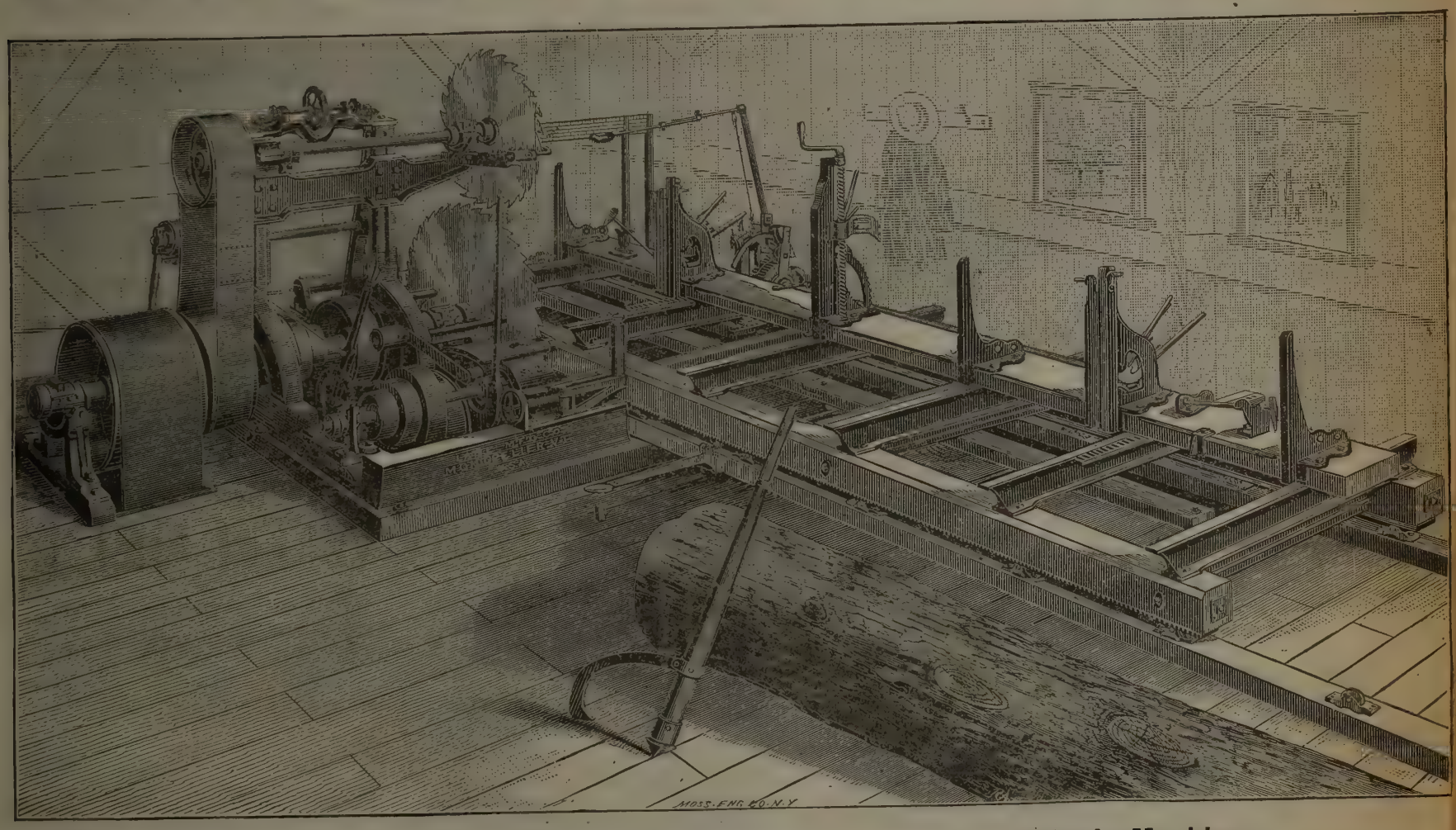


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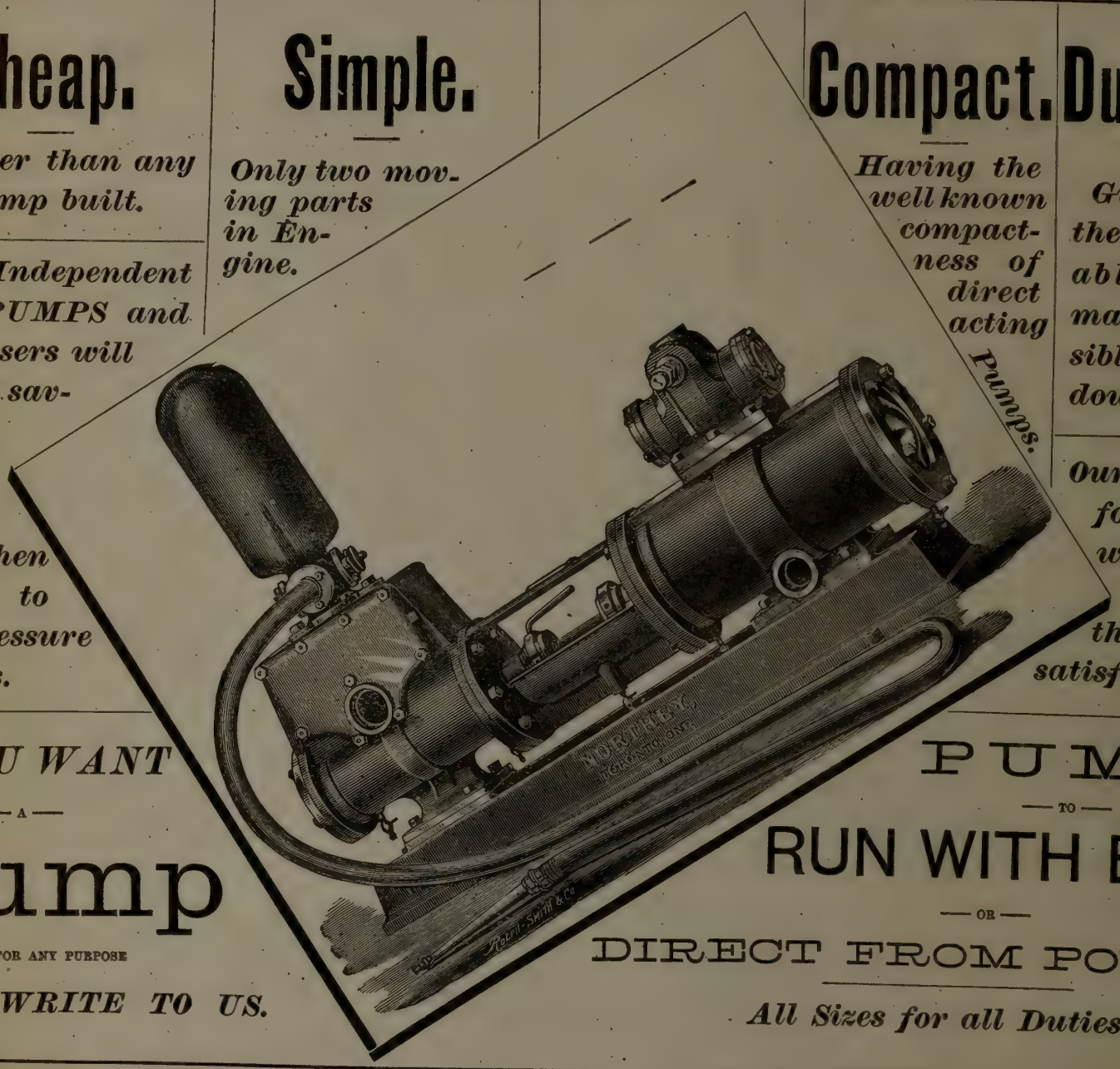


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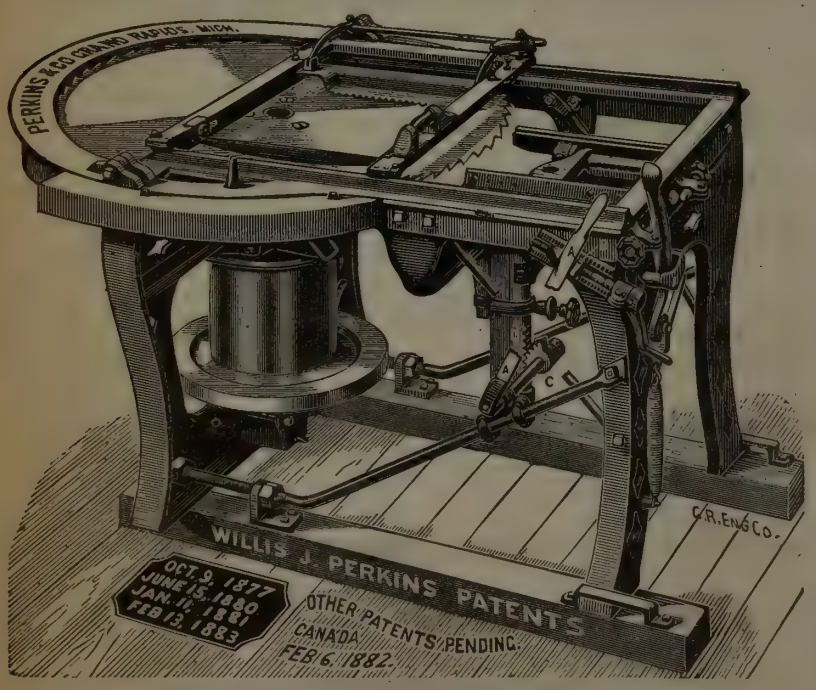


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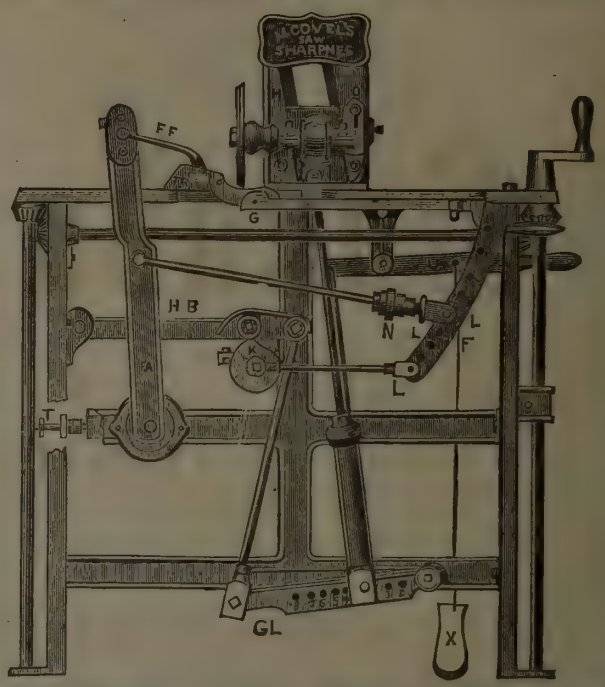


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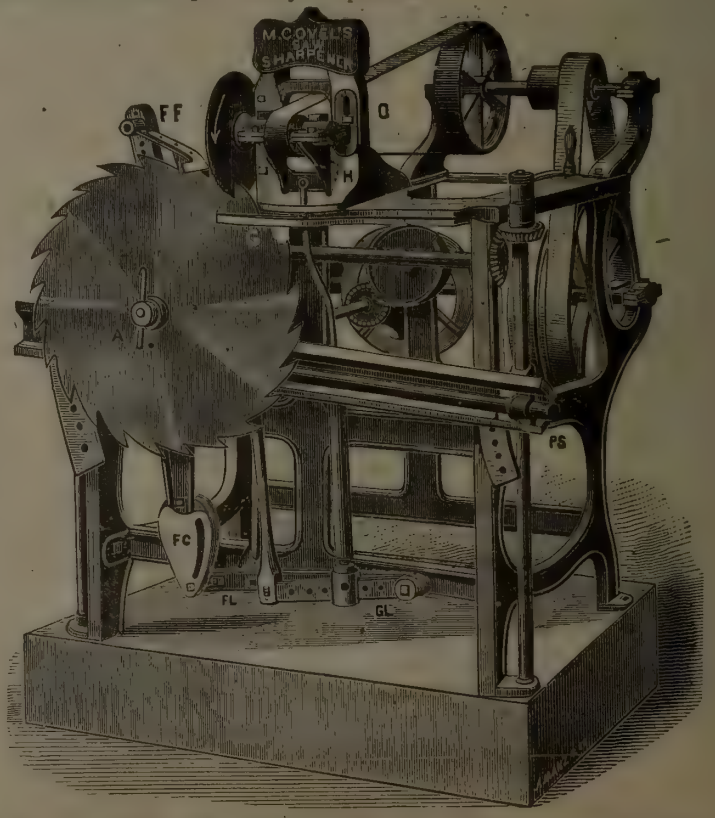


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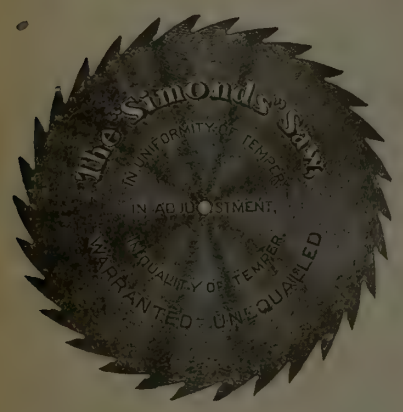


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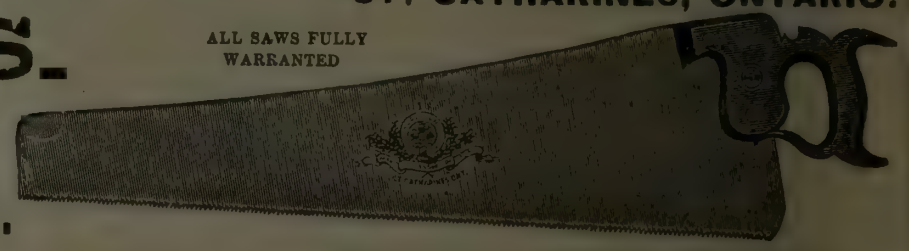

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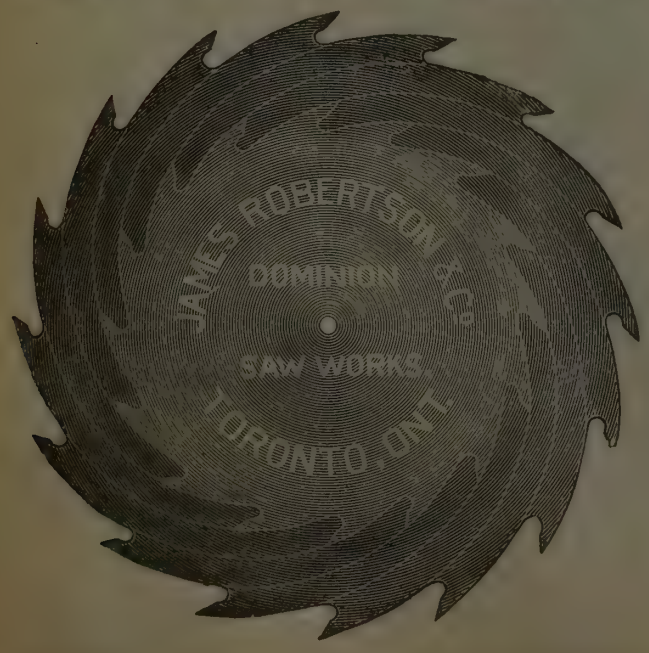


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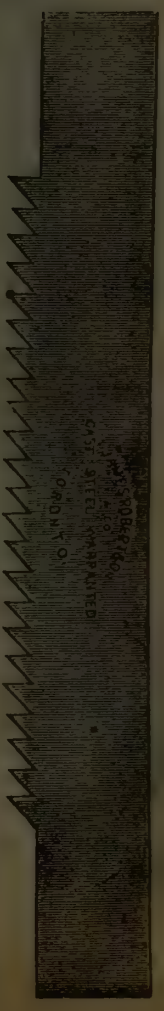

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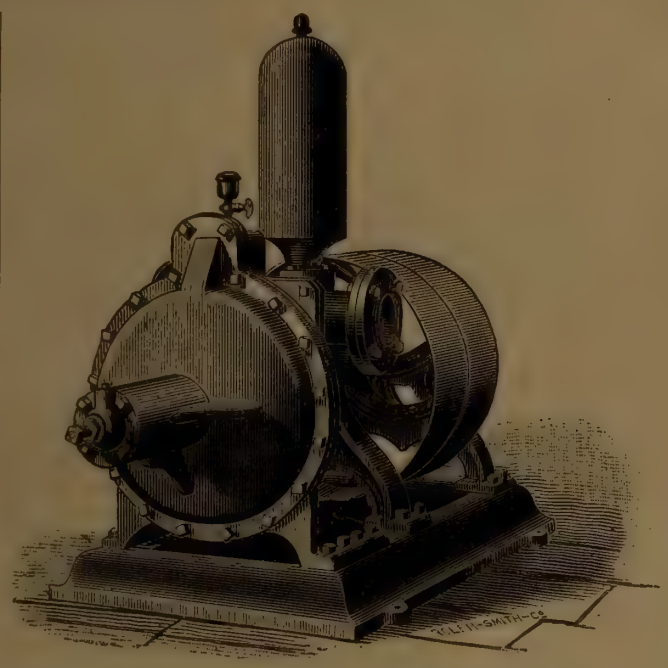

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### THE QUEBEC TIMBE FLEET.

A striking evidence of the depressed condition of shipping is at present made manifest by the almost entire absence of chartering British owned ships this season which are usually employed in the Quebec timber trade. The rate of freight offering is, we understand, so low as to be quite unremunerative, and we believe many Clyde shipowners, under the circumstances, have resolved to allow their ships to remain in port rather than accept shippers' present terms. At this season of the year the ports of Greenock and Port Glasgow are usually all bustle, owing to the fitting out of the timber ships preparatory to sailing on their spring voyage to the St. Lawrence, but up till the present time not a movement has been made among the large fleet owned at these ports and laid up in harbors; and unless freights considerably improve the shipowners' resolution will prove a very serious loss to many parties. For the past four years the ships employed in the Clyde and Quebec timber trade were as follows —

| *Year.* | *No. of vls.* | *Register Tonnage.* | *Rate of Freight Per Load.* |
|---|---|---|---|
| 1881 | 55 | 64,009 | 25s. |
| 1882 | 50 | 54,380 | 23s. to 25s |
| 1883 | 74 | 83,295 | 25s. |
| 1884 | 26 | 29,583 | 17s. " 22s. |

Roughly speaking, these ships would carry crews averaging 18 men, the rate of wages earned by the seamen raging from £3 5s. to £4 per month. Nearly all these ships, with the exception of last year, made two voyages each season to and from Quebec, bringing an average of 75,000 loads of timber of 50 cubic feet. Outwards most of the ships were partly laden with coals, carrying an average of something like 600 tons each, which taking an average of 50 ships per annum during the past four years, represents a shipment of 30,000 tons of coal per year. Then at the fitting-out ports during the spring months a large amount is usually disbursed in repairs, outfit, stores, provisions, &c., while seamen's wives, families and relatives were provided with part of the wages engaged for at the time of shipment.

The rates of freight offering this season, we understand, range from 19s. to 19s.6d. per load, a rate which, if accepted, would simply entail considerable loss upon the shipowner, his disbursements, insurance, wages, and general outlays exceeding the rate of freight earned. Under these circumstances it is not to be wondered at that shipowners prefer to incur the loss which they will sustain by their ships lying up in harbor in preference to sending them to sea, where a greater loss would be the result. Up till the present time only two or three British-owned vessels have been fixed, viz., the late Greenock owned ship, the Craigs, now owned in the Tyne, and Princess Alexandra, of Belfast, and another, said to be at Plymouth. On the other hand, a considerable amount of foreign-owned tonnage has already been secured at the low rates.

It would thus appear that foreign shipowners, freed from the restrictions and vexatious supervision placed on the British shipowner, are enabled to send a class of vessels to sea, and work them so cheaply that a very low rate of freight yields to them a profit. Many of these ships, however, coming to this country are of such an inferior character that our Board of Trade would not for a moment allow them to go to sea, while the seamen are paid a much lower rate of wages, and the dietary scale is much inferior to that served out to the British seamen.

At this season a large number of seamen belonging to Shetland usually come to the Clyde for employment in the Quebec fleet. These men, from their steady and industrious habits, often get a higher rate of wages, the money so earned being generally carried back to their homes at the completion of the fall voyage. On the other hand, the money earned by foreign ships and seamen is nearly all sent out of the country. It may be roughly estimated that something like 100,000 tons of British tonnage has hitherto been employed in the timber-carrying trade, and the present collapse from the want of remunerative employment is a matter to be viewed with deep concern.—*Glasgow Herald, March 22nd.*

### THE WOOD TRADE.

What the insurance fracternity might term "the war hazard" is being considered just now with reference to prices in many lines of goods. The wood trade we find, is no exception. An active trade in lumber and timber, at good prices, is so important to Canada that the interest felt in the prospects for our lumber in this coming season of navigation is quite natural.

As we note elsewhere the demand for our best pine boards and bill stuff, from the United States, is constant, and the price had advanced even before war with Russia was deemed imminent. But of ordinary or inferior goods there is no scarcity, nor is there for these any decided rise in quotations. Advices from American markets are to the effect that the natural consumptive demand will call for a heavy distribution of lumber. But the late opening of navigation means, as the *Northwestern Lumberman* says, that lumber will come forward late, and that mills will start late; and meanwhile, in the eastern markets, winter has lingered long in the lap of spring and movement is as yet limited. The statement is made, on good authority, that all the cut of *good* Canadian pine lumber is pretty well placed for spring delivery; and the proportion which this bears to the whole crop is sufficiently small to make a good price certain.

The *resume* made by our Chicago contemporary on the 11th instant is that while business in the Eastern States is backward, the distributive trade west of Lake Michigan is active. Building operations in New York and New England cities, however, promise well for the season, and a brisker movement may be expected later. As for Chicago, "it is sufficient to say that shipments in March were considerably in excess of the aggregate in March last year."

Supposing war to be declared there is no doubt that the Baltic would be blockaded, and shipment of lumber thence practically stopped. This means much when we remember that Britain receives most of her timber and deals from Baltic seaports. Norway and Sweden constitue the great source of supply, but Russia furnishes no small amount. Russian cruisers might seriously damage the British carrying trade, and give rise to a much greater export from the United States, carrying in American bottoms. According to last mail advices from England stocks at the receiving ports for timber are very low, and imports must be soon begun in order to furnish the yearly supply for that market.

At Liverpool business in wood was paralized by uncertainty and transactions limited. "Orders from the country are small in extent and few in number" says the *Timber Trades Journal* of the 4th. With the withdrawal of tonnage from the Atlantic trade in two Cunard mail steamers and two of other lines, some sailing vessels have already been withheld from market, looking for higher freights; 21s. to 22s. Quebec to Liverpool were the figures talked of in the first week of this month. Accounts from other ports in the United Kingdom state that at Hull, the political strain with Russia is still showing its effect on the wood trade. The salesmen are nearly all withdrawn from the road, and there is no desire to sell stock except at an advance.

Slackness of trade is noted at Cardiff; Norway mining timber is a drug there; some Baltic orders in market. A Sunderland letter says the building and shipbuilding trades are far from brisk, and everything points to a bad year. At Leith, "trade remains in the same depressed condition."

Deliveries of wood goods at Glasgow during March fell off nearly a fourth as compared with the previous March and stocks of everything at Yorkhill yards except red pine deals, St. John spruce boards and oak plank were smaller than a twelvemonth before. As to Clyde shipbuilding, the amount of tonnage launched last month has touched a low point, comparatively, the total being 15 vessels, 13,667 tons. The first of the timber fleet, the Somand, a Norwegian owned vessel, left Greenock for Quebec on 30th March.—*Monetary Times.*

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A KENTUCKY concern is stated to be getting rich out of the manufacture of wooden stirrups.

### OIL IN BOILERS.

In an article upon a bulge in a boiler, produced when the fires were first banked, after putting a gallon of black oil in the boiler, the *Locomotive* takes occasion to say :—"The action of grease in a boiler is peculiar, but not more so than we might expect. It does not dissolve in the water, nor does it decompose, neither does it remain on top of the water, but it seems to form itself into what may be described as slugs which at first seem to be slightly lighter than the water, of just such a gravity, in fact, that the circulation of the water carries them about at will. After a short season of boiling, these slugs or suspended drops seem to acquire a certain degree of stickiness, so that when they come into contact with shell and flues of the boiler, they begin to adhere thereto. Then under the action of heat they begin the process of varnishing the interior of the boiler. The thinnest possible coating of this varnish is sufficient to bring about overheating of the plates, as we have found repeatedly in our experience. We emphasize the point that it is not necessary to have a coating of grease of any appreciable thickness to cause overheating and bagging of plates and leakage at seams. The time when damage is most likely to occur is after the fires are banked, for then, the formation of steam being checked, the circulation of water stops, and the grease thus has an opportunity to settle on the bottom of the boiler and prevent contact of the water with the fire sheets. Under these circumstances, a very low degree of heat in the furnace is sufficient to overheat the plates to such an extent that bulging is sure to occur. When the facts are understood, it will be found quite unnecessary to attribute the damage to low water."

### To Clean a File.

When you are filing a saw and the file gets gummed up don't try to work with it so, or throw it one side and get a new one. If you have no card to clean the file, take a piece of pine wood ¾ inch square by 3 or 4 inches long. Rest one end of the file upon the bench; with the little strike the file nearly edgewise with a square corner of the stick following the slant of the teeth. This will clean a gle nicely without causing half the wear that a card would. A little practice would enable you to clean a file in half the time it would take you to hunt up a card cleaner.—*Hobart.*

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THE Harmon Lumber Company, that this winter has built a mill at the point where the Felch mountain branch of the Northwestern railroad crosses the east fork of the Sturgeon, Menominee county, Mich., has 11,000,000 feet of logs ready for sawing. A planing mill has been added to the capacity of the plant. The headquarters of the company is at 158 Superior street Cleveland, Ohio.

### BELT MATERIAL.

The first idea of a belt for machine purposes is a leather band, but other materials have been used for many years; the writer remembers seeing a six-inch or an eight-inch belt that had run for more than a year in a woodworking establishment, which was made of cotton cloth —sail duck. The belt connected two pulleys of three and two feet diameter respectively, the shafts of which were on the same level. To compensate for the shortening and lengthening of the belt by change in the humidity of the atmosphere, a pivoted idler was used. This change of length appeared to be the only serious drawback to the employment of cotton as belt material, for the adhesiveness of the material to the face of the pulley was excellent. Rubber belting is simply cloth and rubber united by being pressed between heavy rollers; its strength depends upon the fibrous portion—the cloth. There has recently been another cloth belt put upon the market that depends for adhesiveness to the pulley face on cotton. This is a woven belt, the woof or warp of which is a series of continuous steel wires, the filling being coarse cotton yarn, or twine. No preparation is given the cotton either before or after the weaving, and the "shed" in weaving is so arranged that the steel wires, on which the strength of the belt depend, are entirely covered. One of these belts has been noticed by the writer for more than two years—a twelve-inch belt leading from the fly-wheel of an engine—and it shows no signs of destructive wear yet, and has absolutely no stretch. From these examples it would appear that under some circumstances (those of a dry atmosphere, equable temperature, and an unshipable belt,) cotton might prove to be an excellent substitute for leather for belting purposes. There appears to be only one kind of leather that is applicable to belt making—that from the skin of the ox or Bos tribe. During a residence of several years in one of the British American provinces the writer was compelled by circumstances to make his own belts, of such material as could be obtained. Moose hide leather was tried, but it had a quality of indefinite stretch; to obtain a six-inch wide belt, strips not less than 10 inches wide were required, and these were wetted and stretched by powerful winces for several days before they were fit to cut to widths. The leather was very thin for the width of the belt, but it was wonderfully tenacious and adhesive. Rawhide (untanned skin) will do well as a belt if kept soft, by oil, but it lacks the hug of leather and has little elasticity. Ox leather belts stand at the head of those of all other materials for the satisfaction of all demands on belts. No other belt will stand the wear of the shipper; cotton belts are weakened when wet; rubber belts are rotted when oiled, but leather will stand wet and dryness, cold and heat, and last a long time even when oil saturated.—*Scientific American.*

### DEFECTS IN THE IMSPECTION SYSTEM.

Chicago, Boston and many other lumber markets have licensed lumber inspectors, holding certificates issed by the proper legal authorities. This system is supposed to be a guarantee of an impartial and uniform grading of lumber passing through their hands; but unfortunately the guarantee does not always hold good. Hardwood inspection particularly is so varied, and so much depends upon the probity and skill of the inspectors, that especial pains should be taken to insure the purity of the service.

In this city after making application for a certificate the candidate undergoes a practical examination by the hardwood inspection committee of the Lumberman's Exchange, which proving satisfactory he receives his license. This is well enough as far as it goes, but is not thorough enough. Often one member of the committee may discover a man's unfitness for a certificate when others have passed him, but as the examiner is in the lumber business he does not wish the enmity of the inspector, and so concurs with the verdict of his fellows. Objection from one member of the committee should disbar the applicant, and the discussion of each should be privately returned to the proper authority. But after the inspector gets his certificate he is safe for a year, unless he does something outrageous that complaint is made. He either goes into business for himself, hires out to a chief inspector or goes into the employment of a lumber yard. That word "business" is the explanation of all the trouble. Inspector should be a trade and not a business. When he goes into the "business," and hangs out his shingle as inspector, he enters into competition with every other inspector or firm of inspectors. He is anxious to get business, and as about all the business he gets come from one class of lumbermen; namely, wholesale buyers —there is a constant temptation to favor that class.

The Chicago inspectors, as a body, cannot be accused of being guilty of any favoritism; but men in such a responsible position should not be subjected to such temptations. That they sometimes yield is well known. A $5 bill, or *carte blanche* at a neighboring bar, has been known to effect the grade of a lot of lumber very materially. The impropriety of an official inspector being in the employ of a lumber dealer is manifest, and still greater is it for him to be in the lumber business for himself; but both conditions are found in Chicago. The inspector should be wholly divorced from any interest in the buying or selling of lumber. He should be an inspector merely. To avoid the chances of collusion between inspectors and those who employ them, it should be out of the power of any one to obtain any particular inspector. There should be one chief, to whom applications should be sent, and he should have no power to discriminate, but should send out men in regular rotation—the one who has been longest idle to receive the first assignment. Then, with striot examination and watchfulness as to qualifications, experience and personal character, a a tolerable unifiorm and very reliable inspection could be maintained to the honor and benefit of the market so guarded.—*Northwestern Lumberman.*

### A NEW YORK VIEW OF THE OUTLOOK.

During the recent depression in business the wood-working industries have suffered to a far less extent than many other branches of trade. Since July, 1884, wages in saw mills have been reduced but little. In sash, door and blind factories the reduction has not been more than 8 to 10 per cent.; in furniture factories it has been from 10 to 15 per cent.

In drawing conclusions from wages statistics it is to be remembered that they do not tell the whole story. They do not take into account hands discharged through lack of work and in many instances men whose wages remain nominally as high or nearly as high as ever have not been working on full time. Yet it is still true that generally speaking mill men and woodworkers laboring for wages have suffered less than the journeymen in most other trades. The fact is that the decline in wages in the lumber and kindred industries has been much less in proportion than the fall in the prices of manufactured lumber.

But it is certain that lumber values must now advance. During the last two years the decrease in the call for lumber from the farmers has been the worst trouble with which the trade has had to contend, and this decrease was, of course, chiefly due to the fall in the prices for farm products.

This decline has now ceased, and henceforth the values of all products, whether for the farm or factory, must advance. If there is to be a European war the rise will be rapid, and even if hostilities do not break out at present, the advance in values must occur. It will be in the one event a sudden jump, and in the other a gradual, steady tendency upward.

Quite apart from the condition of affairs in Europe, there are circumstances in the business situation in our own country which all tend toward an enhancement in prices and a revival of general business, and when to these factories there is added, as now, the probability of a war between England and Russia, and perhaps further complications in European affairs, the effect on this country cannot fail to be very great, and of such advantages as might accrue therefrom, whether they be permanent or merely transient, the lumber and wood working trades may surely count upon a liberal share.—*Saw Mill Gazette.*

### HOW TO BURN COAL DUST.

Economy is the order of the day, and anything that promises a reduction of expenditure in manufacturing should be put in force, says the *Mechanical Engineer.* Coal dust is a fuel of the best quality if it can be burned easily; and that it can, in an ordinary furnace, a young engineer of New York, B. Smith, has demonstrated. Mr. Smith had taken a contract to run the steam power department of a factory, and in seeking to reduce expenses he naturally sought the greatest item—the fuel. How to burn the dust, or culm, which can be had for a dollar a ton, or less (in some places for the carting away), was the question he wished to solve, and by experimenting he found a plan which succeded perfectly, and he presents it through the *Mechanical Engineer* to the steam using public. Mr. Smith riddled the culm through a sieve, the mesh of which he did not mention. From this he obtained a small proportion of good coal.

On leaving off work at night he made up a good fire of coal, and on top of this he put ten or twelve inches of culm, or dust, wet down just so it would slide of the shovel easily. This was practically banking the whole fire with a blanket of culm, and in this condition it remained until morning. Before starting, Mr. Smith made holes clean through the culm, to the grate bars, and then put on the draft. The fire thus treated would run five hours, or until noon, with plenty of steam all the time. At twelve o'clock the same method was repeated. The results, Mr. Smith states, were a very great saving in fuel, and he seems to have been in a position to judge, for the saving was his profit, or portion of it, on the contract he made. The only change made was in the grate bars, which were much heavier than the old ones, and with narrower air spaces; half an inch we believe Mr. Smith said.

This plan was new to our informant, and is to us; we consider it of sufficient value to our connection to make it public. It must be remembered, however, that this was anthracite culm; just how it would work with bituminous, or semi-bituminous coal slack, we do not undertake to say. The plan needs good natural or forced blast to make it successful, as engineers will easily see.


**Every Woman Knows Them.**

The human body is much like a good clock or watch in its movements; if one goes too slow or too fast, so follow all the others, and bad time results; if one organ or s et of organs works imperfectly, perversion of functional effort of all the organs is sure to follow. Hence it is that the numerous ailments which make woman's life miserable are the direct issue of the abnormal action of the uterine system. For all that numerous class of symptons—and every woman knows them—there is one unfailing remedy, Dr. Pierce's "Favorite Prescription," the favorite of the sex,


### LUMBER BUSINESS IN THE NORTHWEST.

The lumber trade opened in very good shape this spring, and the prospects were that an unusually brisk demand would continue all through the season. With the idea of ascertaining how business in this line was going, and whether the Northwest troubles would seriously affect Port Arthur dealers, a *Sentinel* reporter called on the firm of G. A. Priest & Co., South Water street, and found every evidence of a rushing business. There are twenty-seven men employed in the mill at the present time, mostly of a superior class of workmen. The trade of this firm is pretty evenly spread over Southern Manitoba and the Northwest territories. They have done a large business in Morden, Manitou and all through the Turtle Mountain district, as well as along through regina, Medicine Hat and Calgary. For the last two weeks the firm has shipped orders at the rate of fifty thousand feet per day, and plenty of orders to fill. They have secured this large trade by carefully grading all lumber. Formerly dealers were supplied with anything and everything in the shape of boards, the result of which was to load the country with culls, and compel buyers to seek supplies from Minneapolis and Chicago. But by always enforcing the grading rule Priest & Co. have earned the most favorable reputation all over the vast northwestern country, and now control a very large trade, and no small portion of which formerly drifted across the border. Regarding the effect of the rebellion upon business, Mr. Priest thinks that it cannot fail to retard the growth of the country and greatly check building operations, especially so if not immediately settled. Already there must be from 1,500 to 2,000 teams employed in shipment of troops and stores, which will result in little or no seeding being done. That will necessarily demoralize all present arrangements for building, and thereby affect many of the lumber dealers and manufacturers. This firm has secured the contract for all supplies for the breakwater and the corporation, and when the war is o'er will undoubtedly secure a large share of the revival of business throughout the northwest.—*Port Arthur Sentinel.*

### Science in Driving a Nail.

There is a science, after all, in so simple a matter as driving a nail. A correspondent in an exchange writes that he recently witnessed the experiment of driving nails into timber that had been hard seasoned and was well dried. The first nails, after passing through an ordinary board, went into the timber about an inch, and then doubled up under the hammer. The tips of the rest of the nails were dipped into lard, and the driving was accomplished without any difficulty. The remedy is not a new one, but it is simple enough to be recommended for trial.

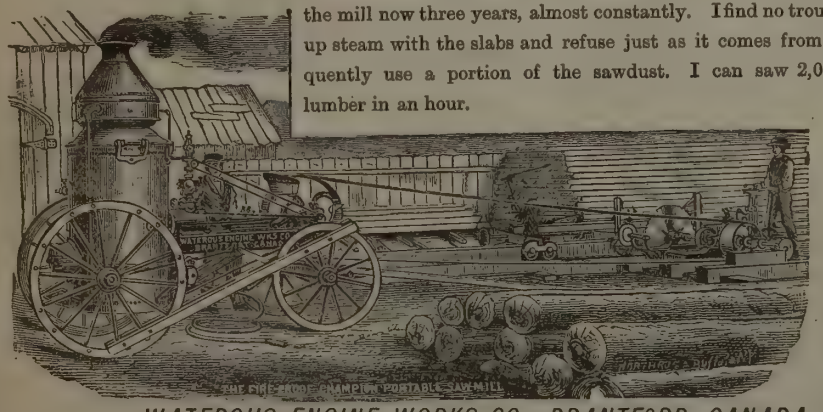
# American Saw-mill Machinery, PORTABLE AND SEMI-PORTABLE Direct Action & Belted Saw-mills

From 16 to 200 horse-power, and from a capacity of 2,000 to 80,000 feet per day of 10 hours.

## CHAMPION PORTABLE SAW-MILLS

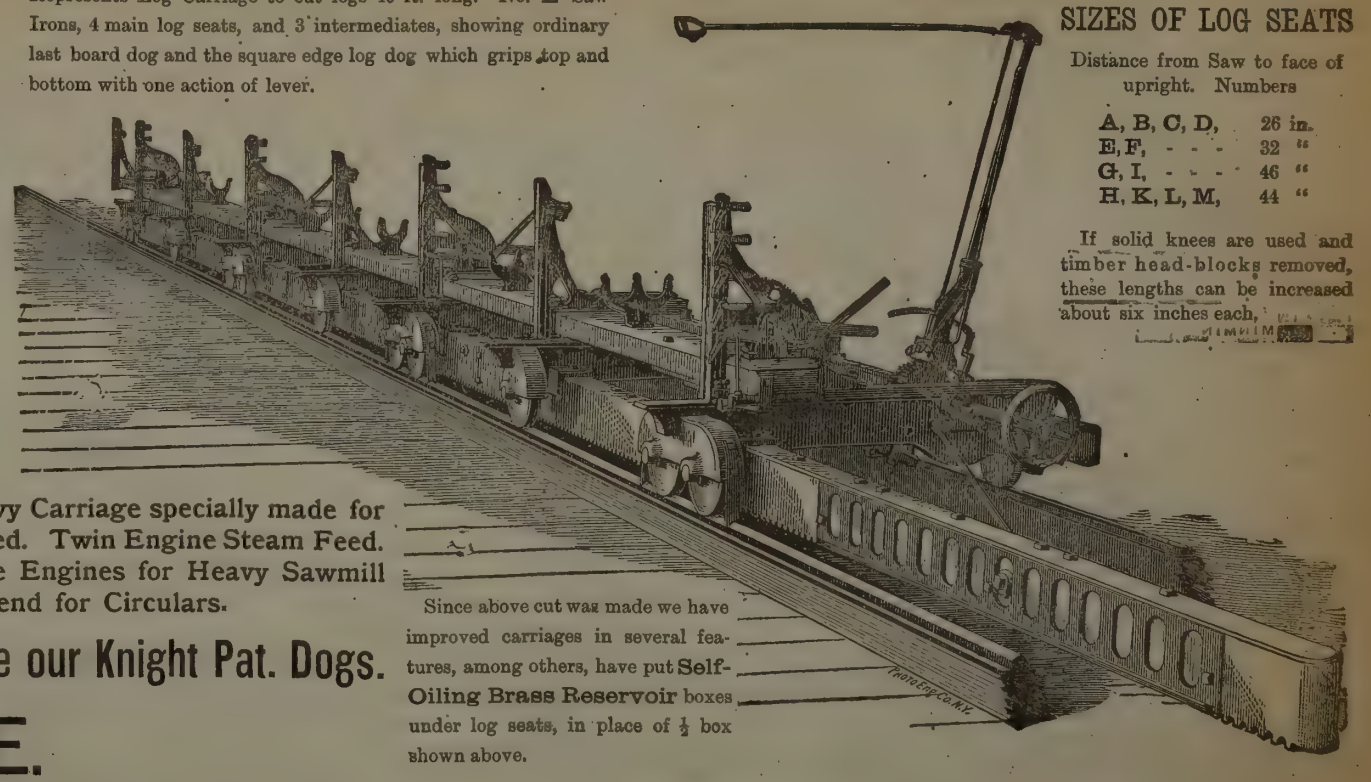
12, 16, and 20 H.-P.

GEORGE BOOK writes as follows:—"St. Ann's, Ont., July 27th, 1882. I have just finished sawing with your 20-horse Champion Engine, and No. 3 mill before harvest. At the last place I set down, we cut 345,000 feet, mostly inch, 70,000 being oak, in nine weeks. We were just ten weeks from time we moved mill till we returned home with it. We sawed above without an accident or delay of any kind. I have run the mill now three years, almost constantly. I find no trouble in keeping up steam with the slabs and refuse just as it comes from saw and frequently use a portion of the sawdust. I can saw 2,000 feet 1-inch lumber in an hour.



WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.

Represents Log Carriage to cut logs 40 ft. long. No. E Saw Irons, 4 main log seats, and 3 intermediates, showing ordinary last board dog and the square edge log dog which grips top and bottom with one action of lever.



### SIZES OF LOG SEATS

Distance from Saw to face of upright. Numbers

| | |
|---|---|
| A, B, C, D, | 26 in. |
| E, F, - - - | 32 " |
| G, I, - - - - | 46 " |
| H, K, L, M, | 44 " |

If solid knees are used and timber head-blocks removed, these lengths can be increased about six inches each.

☞Heavy Carriage specially made for Steam Feed. Twin Engine Steam Feed. New Style Engines for Heavy Sawmill Work. Send for Circulars.

Examine our Knight Pat. Dogs.

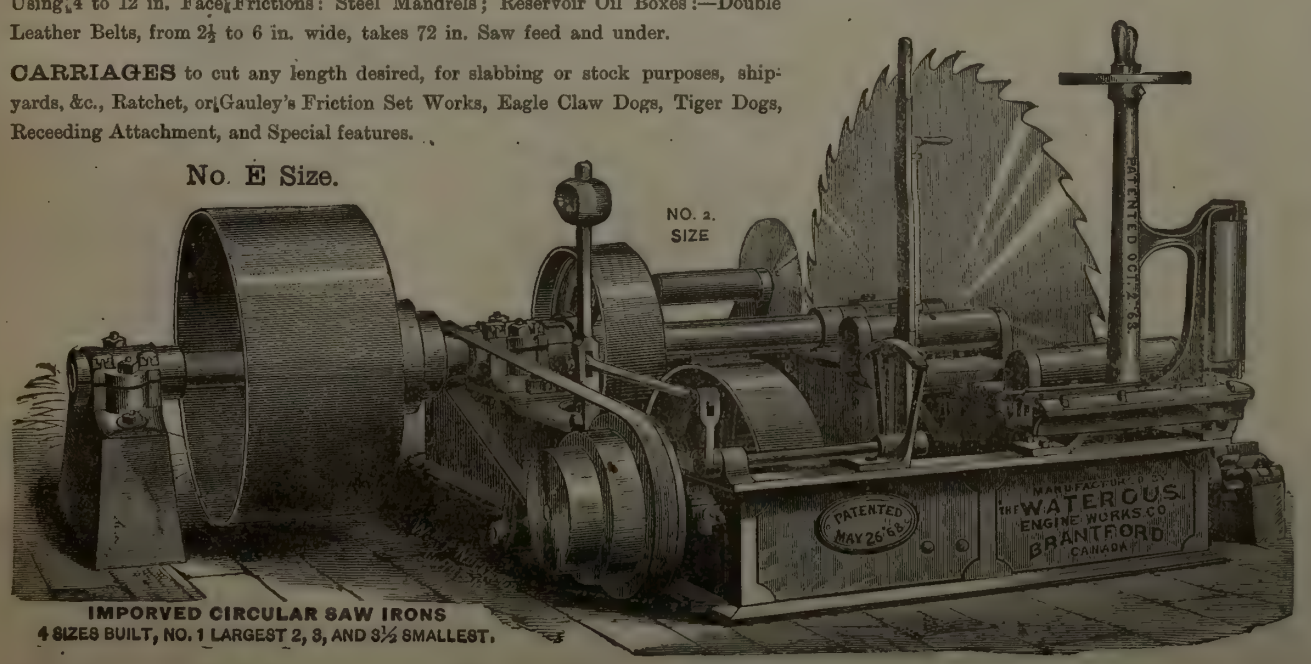
Since above cut was made we have improved carriages in several features, among others, have put **Self-Oiling Brass Reservoir** boxes under log seats, in place of ½ box shown above.

## IMPROVED SAW FRAME.

Using 4 to 12 in. Face Frictions: Steel Mandrels; Reservoir Oil Boxes:—Double Leather Belts, from 2½ to 6 in. wide, takes 72 in. Saw feed and under.

**CARRIAGES** to cut any length desired, for slabbing or stock purposes, shipyards, &c., Ratchet, or Gauley's Friction Set Works, Eagle Claw Dogs, Tiger Dogs, Receeding Attachment, and Special features.

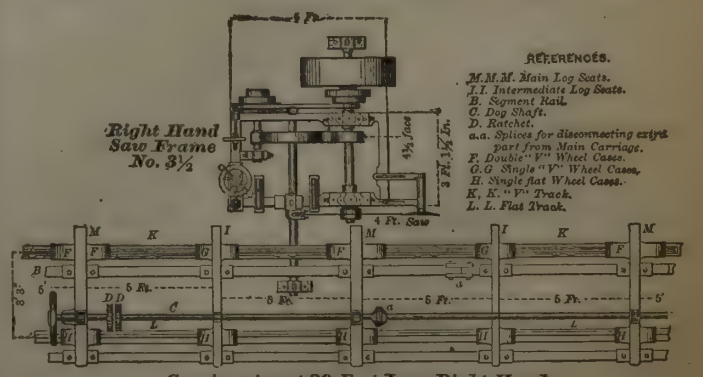
No. E Size.




IMPORVED CIRCULAR SAW IRONS
4 SIZES BUILT, NO. 1 LARGEST 2, 3, AND 3½ SMALLEST.

By direct practical experience of over forty years in the lumber woods of Canada we have gained an intimate practical knowledge of what is necessary to produce a cheap, practical, efficient saw-mill, and have so built and improved our machinery that no mills can compare with them to-day in these respects.

This view of our smallest Saw-Irons illustrates fairly all the eleven No. A. larger sizes that we make.




*Carriage to cut 30 Foot Logs, Right Hand.*

Shows Carriage with Slides on Log Seats, Upper Rail and Knees or Uprights removed.

☞Send for Prices and Illustrated Catalogue.

Send for Sawyers and Lumbermens Handbook. A new treatise on Saws and Saw-mill furnishings, just published. Free to all using Saws.

# The Waterous Engine Works Company, Brantford, Canada.

## THE PROVINCIAL FORESTRY ASSOCIATION.

QUEBEC, April 11.—To-day the annual meeting of the Provincial Forestry Associations was held in the Parliament buildings. There was a very large attendance of members of the house and others taking an interest in the important subject. Hon. H. G. Joly, president of the association, occupied the chair and amongst others present were, Hon. Premier Ross, Hon. W. W. Lynch, Minister of Crown Lands; Hon. B. de la Bruyere, Speaker of Legislative Council; Hon. Louis Beaubien, Hon. J. S. C. Wurtele, Speaker of Assembly; Messrs. Chas. Gibb, Abbotsford; S. C. Stevenson, Montreal; W. Little, Montreal; S. Lesage, Assistant Commissioner of Agriculture; E. A. Barnard, Director of Agriculture; O. Dunn and E. I. Rexford, Secretaries Department of Public Instruction; W. J. Poupore, M. P. P.; W. Owens, M. P. P.; E. E. Spencer, M. P. P.; G. Carbray, M. P. P.; Demers, M. P. P.; Lavalee, M. P. P.; Richard, M. P. P.; Beauchamp, M. P. P.; Duhamel, M. P. P.; Martel, M. P. P.; Faucher de St. Maurice, M. P. P.; Desjardins, M. P. P.; Asselin, M. P. P.; Marion, M. P. P.; Deschenes, M. P. P.; Gagnon, M. P. P.; Gauthier, M. P. P.; Picard, M. P. P.; Poulin, M. P. P.; St. Hilaire, M. P. P.

Hon. Mr. Joly, in opening the Congress, said that the object and purpose of the Foresty Association of the Province of Quebec was twofold; to protect standing timber and to create new forests where old ones had become destroyed. As to the cultivation of orchards, he would leave that to Mr. Charles Gibb, of Abbotsford, who was better qualified than anyone else in the country to deal with the subject. He referred to the great sacrifices made by that gentleman in travelling at his own expense to Russia to find out the kind of fruit trees which might be introduced here with the greatest prospect of success. He hoped his devotion would be appreciated, and thought the best reward the public could give him was to assist him in carrying on the good work which he had begun. The hon. gentleman spoke of the difficulty which existed here in protecting timber on private lands, but timber upon crown lands can and must be protected, and he was sure that under such a Commissioner of Crown Lands as Hon. Mr. Lynch the country can depend upon this being done. His devotion to the cause of forestry was well known throughout the Province. Mr. Joly also spoke of the importance of the preservation of forests from many different points of view, such as the supply of firewood, of timber for building purposes, of lumber for trade purposes, of the great climatic influence exercised by forests and their importance in securing a regular supply of water, ensuring the success of agriculture. He also referred to the great good which had been accomplished in England by re-afforesting, and instanced again the case of Landes in the South of France, where hundreds of miles of barren sand have been planted with pine forests which yield an enormous revenue. The same policy was being adopted in nearly every civilized country in the world. Our people must be taught in early childhood the value of our forests. The cultivation of trees should be part of the education of our children. Such a training developes all the best qualities of manhood,—prudence, foresight and perseverance, and teaches them that no details should be neglected, and that success is only to be attained by continued exertion. The hon. gentleman referred to the institution of Arbor Day, which after two years' trial had now become one of our provincial institutions. He entered upon details as to the best mode of spreading a knowledge of the culture of trees among the people, and closed with an earnest appeal to all men of good will, who were ready to work not only for themselves, but for those who were to come after them, to lend a helping hand to the Forestry Association in the extension of its labors, and dissemination of the facts and teachings which it sought to have prevail on a subject fraught with so much importance to both the present and the future of the Province of Quebec. The hon. gentleman resumed his seat amid loud applause.

The HON. MR. LYNCH said that the hon. president had so fully discussed the object of the association that little remained for him to do but to second his remarks. The association had its origin in the idea that the time had arrived in the history of this province when it was necessary that something should be done in the direction of preserving what was really to-day the most valuable asset in the revenue of the province. A great deal has been said about the preservation of the autonomy of the province and yet he feared that little or no consideration had been given of the means by which this desirable end was to be attained. The people seemed disposed to regard this desired end without consideration of the means by which it is to be reached. If reference were made to the receipts of the provincial treasury for the past year it would be seen that the revenue derivable from the crown lands of the province or rather from the timber growing upon those lands constituted a very considerable portion of the total. It therefore became a matter of the highest necessity that we should give our attention to the means by which this source of revenue was to be continued and if possible to augment it. The tendency unfortunately was to open up for settlement a much greater extent of our crown lands than should be the case and in doing this a double injury was done, owing to the fact that perhaps an honest settler was induced to buy for settlement purposes, land utterly unfit for cultivation. (Hear.) The settler cut the timber which gave him a temporary reward and when it disappeared he too often found that nothing but unproductive land remained. In the meantime the treasury was deprived of the revenue which under other circumstances would have reverted to it. (Hear, hear.) This association should do all in its power to strengthen the hands of the government in their endeavor to make a more effective division than had hitherto been made of the public lands of the province, both those which were to be opened for settlement and those to be allotted for timber purposes. These observation applied only to the unsettled portions of the province, but there remained another and an equally important work to be done which was to educate public sentiment in the direction or re-afforesting in localities where a wanton waste has unfortunately made a woful want. (Applause.) Much could be done in this direction and was shown by the facts that the the older countries of Europe as well as the states of the American Republic have awakened to the fact that climatic as well as other reasons demanded that consideration must be given to this subject. There could be no doubt that the absence of forest trees had a tendency to produce an absorption of the moisture in the ground and the result was that there was too much damp, floods were helped and the country suffered from disastrous freshets. The policy of the Government had been in leasing the fishing rights pertaining to rivers and lakes to reserve from sale a portion of the lands adjoining those rivers and lakes, not alone for the preservation of its fishing rights, but for the more important purpose of preserving the climatic influence which forests exercised in the vicinity of waters. As for as the hon. gentleman was personally concerned, he would give the question of tree culture and re-afforesting his earnest attention, and whenever a suggestion was made to him by gentlemen who took an interest in this matter, the suggestion would meet his earnest attention, and he would only be too glad to recommend it to his colleagues in the Government. (Applause.)

MR. WM. LITTLE, Montreal, moved "That this association respectfully recommend the Government to take early action to arrive at an appropriate idea of the quantity and quality of the pine and spruce timber still remaining on the crown lands in this Province." He said: In moving this resolution I would remark that the income derived by the province from woods and forests has in the past been one of its main sources of revenues, the total as returned in the Report of the Hon. the Commissioner of Crown Lands for 1884, amounting to the handsome sum of $660,757, nearly the whole of which was derived from pine and spruce timber. These figures show how deserving of attention this question is, and that, therefore, it is of the greatest importance to know how the country stands for the future.

In connection with the business of lumbering in which I am engaged, I have had occasion to observe how rapidly the quality of the pine was deteriorating, even when the quantity showed little signs of reduction. To-day, however, there are evidences that the quantity in some sections with which we are acquainted is seriously falling off. Few, I am sure, who have not given close attention to the subject will be prepared to learn that within the short period of twelve years the amount of pine lumber sawn on the St. Lawrence, below Montreal, has fallen from 250,000,000 feet to less than 25,000,000 feet last year, an amount barely sufficient to furnish a factory on the other side of the river with a full supply of pine stock for making match splints. Now, while this shows that a section of country, but recently having a large amount of pine, must now be getting short of pine stock and that there was every reason for the Government to be careful of its spruce timber, which must take the place of the pine when it is gone. A sale of timber limits held in this city in December last, and the price which the Government was pleased to accept for them would indicate at least that it had no fear for the future. I quote from the *Chronicle* of December 18th, 1884. For the first lot put up, 60 square miles, the sum of $108 per square mile was accepted as bonus, the purchaser having of course to pay the dues fixed by the government on any timber cut therefrom. It was but 17 cents an acre.

The friends of the Forestry Association can see that our association has not lived in vain. In all seriousness I must say that this trifling with the property of the country, and members of parliament who permit such sacrifices with out protest fail in their duty as guardians of the country's wealth. In connection with this subject and here I beg leave to remark, as the foregoing would seem to imply some sort of censure of the hon. gentleman, the Commissioner of Crown Lands, that is not so intended. No one who has the pleasure of the acquaintance of this honorable gentleman and takes any interest in the subject of forestry can do otherwise than feel the heavy obligations the cause is under to him, and it is the intelligent interest he has always shown and is now taking in the subject in connection with our honored and honorable president that leaves reason to hope that something may yet be done in the direction of forest preservation and its attendant advantages, and the names of Joly and Lynch always side by side when anything connected with this interest is opposed, will stand out prominent as the first friends of forestry in the Province of Quebec. (Applause.) It is not the commissioner that is to blame, but the pernicious system, only less bad than that which previously prevailed of selling off large blocks of timber lands in advance of any real demand, for comparatively nothing as regards price, that has caused lumbermen and others to look upon such property as of little value, to sacrifice it without getting satisfactory returns, and to nearly rid the country of the most valuable property it possessed. It is now fully time in my humble opinion that more intelligent methods should prevail, that we should take stock of our forests and see how we stand, and, while blaming nobody for the past, all join hands to make the most out of what is left. And, if we could only prevail on honorable gentlemen to give some of their time to the investigation of the important subject of forest supplies in which the whole country is most deeply interested, much good would no doubt result from it. "Agriculture and the lumber trade," says *Bystander*, "are commercial Canada. Vain is advertising, vain all policies of development if the substantial wealth of the country is allowed to perish. But trees have no votes and the general carelessness of elective governments in this respect presents an immense contrast to the carefulness of administrative monarchies." Let the Province of Quebec show the world that there is one elective government at least that has some regard for the public interest, and in no way can this be better done than by sacredly guarding the forest wealth of the country, which, though badly mismanaged hitherto, is yet of enormous value. To show how important it is that we should husband our timber resources and not cut them off in the reckless manner we have been doing, permit me to add there are evidences existing to show that, apart from what we send our friends and others across the sea, our great and wealthy neighbor to the south of us, the largest consumer of forest products in the world, may require before long to draw more heavily on our resources than she has hitherto done, and since she has kept us from sacrificing a large portion of our timber by an almost prohibitive duty, it would be only fair to allow us a handsome profit for keeping it till she requires it. The great northern pine producing states, Michigan, Wisconsin and Minnesota, which, notwithstanding the serious depression in all other industries, increased the output of sawn lumber from 3,600,000,000, in 1878, to about 8,000,000,000 in 1884, every year showing an increase on the previous one, and as you may observe, more than doubling the quantity in six years, with an almost similiar increase in the output of shingles, the amount for 1878 being 2,500,000,000, as compared with 4,500,000,000 in 1884, now begin to show unmistakeable signs of exhaustion. Adding the timber made into shingles to that sawn, and including also squared or flatted timber, would make a grand total of more than 9,000,000,000 of feet last year, of which the single state of Michigan produced fully 5,000,000,000. This latter state being the one entering more immediately into competition with us in the eastern markets will this year barely turn out 60 per cent. of last years product, or 3,000,000,000 of feet, and that this occurs from a scarcity of stock of a suitable quality for profitable conversion is evident from the fact that many mills will have no stock whatever of their own to saw, and are offering to contract to saw for others as low as $1.25 per thousand feet, while the great states of Ohio, Pennsylvania, New York and most of the New England States, those states that consume the whole of the product of Eastern Michigan, besides what is sent from Canada, have been, if anything, more prodigal in their waste of timber than ourselves, so that Ohio having, in 1853, 55 per cent. of her land in forest had reduced the forest area to 28 per cent. in 1870 and to 20 per cent. in 1881.

"In Pennsylvania," says Professor Hough, one of the most intelligent writers on forestry subjects, and late chief of forestry in Washington, "the forest area is blow 25 per cent. It is the same in Ohio and New York and in most of all the older states of the north, while in the prairie states of the west it is very much less. We are already on the borders of the dangerous limit and were our supplies from Canada and from Michigan stopped, we would speedily begin to feel the burden of prices, which would not long precede the pressure of absolute want."

So that by husbanding our timber and prudently conducting our lumbering operations till our wealthy neighbors require what we have to spare, which all indications point to an early date, we may expect a profitable future not only for the province, but for the lumbermen as well. (Applause.)

HON. MR. LYNCH, in reply to the remarks of Mr. Little, said that were it not that he knew the deep interest this gentleman took in the question he might be induced to regard as personally offensive the remarks which he had offered in support of the resolution. He was disposed, however, to forget for the moment his official relations, and to regard the subject matter of the resolution rather in the nature of a desire on the part of the association to strengthen the position which the hon. commissioner had taken in connection with the administration of the public lands of the province. It was true that during the past year a considerable extent of ungranted lands had been sold at public auction for timber purposes. This has been done at the request of various persons and because the government felt that in the public interest it was desirable that these lands should be in the hands of individuals who having a personal interest in them would be induced to give them a protection which could not be expected if they remained in the crown domain. As regards those in the eastern portion of the province, they were known to be of comparative little value and it was hoped that their pur-

chasers would devote themselves not only to the cutting of the timber, thereby enabling the settlers in the vicinity to profit by the lumber trade, but also to give them a much more efficient protection than could otherwise be hoped for. As regards the limits sold in the west of the province he was in the position to say that the prices realized were amongst the best ever obtained in this province and the hon. gentleman refused to sell them at a lower price than he believed them to be worth. (Applause.) The policy of the Government in this connection was in accordance with sound ideas not to dispose of any part of the crown demesne otherwise than for absolutely necessary purposes and at a price reasonably representing the value of the article sold. He had no objection to the resolution and truly hoped it would have the effect of strengthening his hands or whoever might be for the moment discharging the responsible duties of the crown lands department in guarding this valuable asset. (Applause.)

MR. OWENS, M. P. P., Argenteuil, supported the resolution. He took exception to Mr. Little's remarks with reference to the sale of timber limits by the Government, and called his attention to the fact that the amounts offered by the lumbermen were merely bonuses to obtain the license to cut timber, but it should be remembered that duty was paid to the Government upon every foot of timber cut in virtue of this license. (Hear, hear.)

Motion was then adopted.

MR. S. C. STEVENSON moved "that the superintendent of education be requested to address a circular to all the schools of the province, asking them to observe arbor day as a holiday." In moving the resolution Mr. Stevenson said that the surest way to create an interest in the important subject of forestry was by endeavoring to interest the children and train their minds to take some interest in it. In order to attain this end he urged that a circular be issued by the department of public instruction to every educational establishment throughout the province, inviting the pupils to celebrate Arbor Day with enthusiasm, by planting trees in the school grounds or in some convenient place. He also urged that a short paper, suitable to the calibre of the children, should be prepared by the department, showing the value of the climatic effects produced by trees as well as some interesting information regarding aboriculture. Instructions should also be furnished to the children regarding the planting and care of trees. This paper must be in French and English, and should be read by the teacher to the pupils a few days before Arbor day in order that their attention might be directed to the occasion and its objects. He showed how the appearance of the schoolhouses throughout the country could be greatly improved by the judicious planting of trees around them. The speaker also urged that the clergymen, Protestant and Catholic, should be invited to plant trees in the vicinity of their churches. (Applause.)

MR. GIBB said that similar action had been taken in the United States, as may be seen by the wonderfully complete series of maps and statistics of Mr. Sargent, of Massachusetts. If we look to the old world we find that long ago very minute statistics have been taken by the European Governments of their forest wealth. In Russia (where the climate is most like our own) the department of public domain will tell you that the Government has in Europe 351,000,000 of acres of woods, besides the scrub of the far north, and can show at a glance their expenditure and profits. The department has 762 forest stations, for working the forest in the forest regions, and for planting in the steppe or plain region. It would seem that a more accurate knowledge of the value of our provincial forests would be of great value.

After further debate, the resolution moved by Mr. Stephenson was unanimously adopted.

AFTERNOON SITTING.

There was a very good attendance at the afternoon sitting of the association, which opened at half-past two.

MR. J. C. CHAPAIS, editor of the *Journal of Agriculture*, read an interesting paper on the transplanting of forest trees, and it was resolved that the Government be asked to secure the publication and distribution of the recommendations contained in it. It was also resolved that circulars and instructions regarding Arbor Day should be forwarded to Mayors of all municipalities in the province, school commissions, school teachers, agricultural societies, &c., &c. Considerable discussion ensued respecting the selection of the date to be recommended to the Government for Arbor Day. It was finally decided to recommend two dates, Tuesday, the 5th instant, for the Western or Montreal district, and Tuesday, the 19th, for the Eastern district of the province.

MR. S. C. STEVENSON dwelt upon the importance of enlisting the assistance of the agricultural societies and colleges of the province to secure the successful observance of Arbor Day. These societies might also raise seeds and seedlings to be distributed next year by the Government.

HON. MR. LYNCH suggested the division of the association and its friends into committees to promote the due celebration of Arbor Day in various parts of the province. He wished the season was so far advanced that members of the association could be taken to the Cove field to see the six hundred trees which had been planted there last year. He hoped that the same good work would be repeated here this year, but much remained with the citizens of Quebec, and he trusted the press would urge the importance of the subject upon the people. The locality in question was the side of a hill forming one of the most magnificent spots in the world, and commanding a view not only of the river, but of the country on the other side, being an aspect of magnificent and unapproachable beauty. It was also historic ground. The Dominion Government had been kind enough to grant permission for the planting of trees, and he hoped that this year 600 more trees would be planted there, next year another 600, and so on until a large extent of land would become beautifully wooded, forming a popular resort for the people of Quebec and for all who may visit the city. What was particularly desirable, however, in the connection was the creation of as much public enthusiasm as possible. (Loud applause.)

REV. E. I. REXFORD alluded to the difference of opinion that existed on the fundamental principal of tree planting, some people holding that spring was the proper time for transplanting trees, and others favoring the autumn. It was again thought by some respectable authority that the phases of the moon had something to do with the matter. People did not by any means agree as to the advisability of cutting the tops of trees transplanted. These differences of opinion were all calculated to confuse people, particularly in the country districts. He thought the best expression of opinion on these subjects should be obtained. He also suggested that means should be adopted for interesting school children in some practical manner in tree planting. Out of the 10,000 children attending public schools in the city of Montreal, it was impossible for one out of a hundred of them to get near a tree on Arbor Day. He further recommended that the matter of agriculture be brought prominently before the Normal schools and teachers' conventions, as a manner of reaching the children.

MR. STEVENSON suggested that the Governor-General, who was a botanist of no mean order, and who had great experince in arboriculture on his estates in England and Ireland, should, if possible, be invited to assist in the celebration of Arbor Day.

A long debate ensued on the motion of Mr. Barnard for the establishment of experimental stations for the planting of different kinds of forest and fruit trees.

MR. CARBRAY was much in favor of the resolution. Though Mr. Gibb had ascertained what kind of trees grew in similar latitudes to ours, in Russia and elsewhere, he believed that nothing definite could be known as to what trees would really thrive here, unless experiments were made in the Province.

MR. S. LESAGE suggested that nurseries should be conducted by the agricultural colleges for the purpose of making the experiments required. So far we have simply been displacing trees, taking them from the forest and planting them elsewhere, but what he desired was that the trees should be raised from seed.

MR. BARNARD was extremely anxious that experiments should be made in the growing of of hardy fruit trees under the auspices of the Association, in order that as director of agriculture he might be in a position to reply to the numerous questions he received on the subject.

Hon. Messrs. Lynch and Joly and Messrs. Gibb, Little and others expressed their fear that the association had more than it could do in the matter of forestry without branching off into fruit growing.

The motion was then withdrawn.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:

PRESIDENT.—Hon. H. G. Joly.

VICE-PRESIDENTS.—J. K. Ward and L. H. Massue.

RECORDING SECRETARY.—J. X. Perrault.

CORRESPONDING SECRETARY AND TREASURER. —J. C. Capais.

HON. W. W. LYNCH moved a vote of thanks to the president, Hon. H. G. Joly, for his valuable services in connection with the cause of forestry, claiming that the success which had been achieved was largely due to that gentleman's efforts. He referred to Mr. Joly's visits to Minneapolis, Winnipeg and Saratoga, in the intersts of forestry.

The resolution was unamiously adopted amid applause, as well as a vote of thanks to the retiring president, Mr. Barnard, who declined re-election.

The president drew the attention of the association to the necessity for new legislation to prevent the destruction of woods by fire.

MR. STEVENSON dwelt upon the importance of inducing lumbermen to take a greater interet in the work of the association.

After further discussion the meeting adjourned at 6 p. m.—*Montreal Gazette*

**A Prize in the Lottery**

of life which is usually unappreciated until it is lost, perhaps never to return, is health. What a priceless boon it is, and how we ought to cherish it, that life may not be a worthless blank to us. Many of the diseases that flesh is heir to, and which make life burdensome, such as consumption (scrofula of the lungs) and other scrofulous and blood diseases, find a complete cure in Dr. R. V. Pierce's "Golden Medical Discovery" when all other remedies have failed. Dr. Pierce's pamphlet on consumption mailed for two stamps. Address World's Dispensary Medical Association, Buffalo, N. Y.

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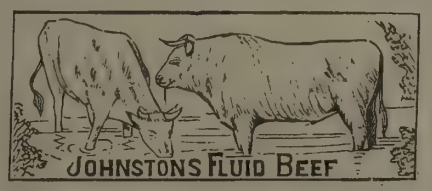


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**Terms of Subscription:**

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., MAY 1, 1885.*


## FOREST FIRES.

WE herewith print for the benefit of our readers a copy of a circular letter addressed by the Crown Lands Department to the limit holders in Ontario. We understand that it is the outcome of an interview which took place last winter, between the Commissioner of Crown Lands and several prominent limit holders, and is said not at all to express the remedies then suggested, in regard to forest fires, by these gentlemen to the Commissioner. It was pointed out, we believe, at that interview, that from May to October being the dangerous periods as mentioned in this circular letter, were also the months of the close season for hunting deer and other game, and that protection to the forests as well as to game might be obtained by simply not allowing the public, other than the employees of license holders and purchasers of land, on the Crown timber domain without a permit, either from the particular license holder or the nearest Crown timber agent. In this way a public record would be obtained of those who had a right to be in any particular locality, and hence the originator of a fire could be easily traced. Any trespassers found without a permit to be liable to criminal action, under a clause of the fire act, which was to be introduced in the form of an amendment. Those most competent to judge believe that by far the largest quantity of valuable timber is destroyed by fires caused by a few men in each section, who follow no other occupation than killing deer at all seasons. If it was criminal for these men to be found, during the close season, on the Government limits with a rifle and without a permit, the double object, we fancy, would be secured of protecting game and timber. The intention, however, of this circular letter is a good one and it would be well for all limit holders to give it careful consideration before committing themselves to the policy it contains.

The following is the circular :—

"The Commissioner of Crown Lands, feeling the importance of creating some better organization for preventing the destruction of the forest by fire, has approved of a scheme, the principal points of which are herein stated to you so that you may, should the position of your limits make it desirable, avail yourself of its advantages.

It is proposed that during the dangerous period, say from the first day of May to the first day of October in each year, there shall be placed on such limits as are exposed to danger a man or men who will be empowered and instructed to use every endeavor to prevent and suppress fires in every way possible, and the ranger who is placed in charge of a limit will be authorized to engage whatever help may be necessary to cope with a dangerous fire where prompt action is necessary; these men will be supplied with copies of the "Fire Act" and instructed to post them up in public and conspicuous places, to visit each person resident on the limit and give them, if thought advisable, a copy of the Act, explaining to them its provisions, penalty for its infraction, etc., and to endeavor to enlist their assistance and sympathy to make the Act effective.

The Department will leave the limit holder to suggest the number of men who should be placed on his limit, and as it is of all things necessary that practical bushmen of good judgment and well acquainted with the limit should be selected, he, the limit holder will nominate the man to be placed in charge of the limit and his subordinates, if any, the Depart ment reserving the right to limit the number of men to be employed on any limit and also to reject or remove any man whom it finds unfitted to discharge the duties of the position.

It is hoped that the limit holders will recognize the necessity for recommending men of good judgment and cool temper who while fully discharging their duties will not harass or annoy settlers or others, as, if an animus is created in the breasts of the settlers the scheme will undoubtedly fail to effect the result it expected. Limit holders will be expected to exercise supervision over these men and see that they thoroughly and effectually perform their duties.

With respect to remuneration the Department thinks that the man in charge of a limit should be paid three dollars a day which should cover board and ordinary expenses, and where subordinates are required, that suitable men can be obtained at two dollars per day, which should also cover board and ordinary expenses; the men will be appointed bush and fire rangers and instructed from here so as to clothe them with authority under section 14 of the Fire Act, and a copy of the instructions will be furnished each limit holder.

As the limit holder is reaping a large proportion of the benefit, it is intended that he should bear one half of the cost of men and expenses which may be incurred under this scheme.

The Department will pay wages and expenses and charge to each limit holder his proportion which will be made a charge upon the limit and an account will be rendered at the close of the season when prompt payment must be made.

Should you desire to avail yourself of this scheme you will at once address a letter to the Department to that effect, stating the limits you wish protected, the number of your license for current season, the number of men you would recommend to be employed, and submit a list of those you would recommend for appointment on your limits.

THOS. H. JOHNSON,
Assistant Commissioner.

Department of Crown Lands,
(Woods and Forest branch,) April, 1885."

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IN the Province of Quebec the 5th and 19th days of May have been set apart as Arbor Day, the former date for the western and the latter for the eastern divisions of the Province. In Ontario the 8th day of May has been proclaimed a school holiday, by the Minister of Education, for the same purpose. In this Province the holiday is confined to rural and village schools.

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As will be seen from their advertisement Messrs. Robin & Sadler, manufacturers of belting, etc., Montreal, have opened a warehouse on King Street, Toronto, having found it necessary to take this step in order to supply their western customers more promptly, and also to attract the trade of those who found the delay of obtaining goods from Montreal too great.

## ARBOR DAY IN QUEBEC.

The following circular has been issued by the Superintendent of Education for the Province of Quebec:

GENTLEMEN,—The Lieutenant-Governor has been pleased to proclaim the fifth and nineteenth days of May next "Arbor Days" for the western and eastern divisions of the Province respectively. This custom of setting apart a special day for tree planting is becoming more general and popular each year in the Provices of the Dominion and in the neighboring States.

The rapid disappearance of our forests have made it quite clear to all thoughtful men that arboriculture and the conservation of our forests are subjects of national importance. We require an enlightened public sentiment upon this subject, so that the people may feel that the interests of all classes are concerned in the protection and extension of our forests. Of all the agencies which have been used for this purpose no one has awakened such general interest in arboriculture as the annual celebration of Arbor Day as a national holiday for tree planting. This is due in a great measure to the fact that by this means the pupils of our public schools have been interested and enlisted in the good work. The influence of Arbor Day in school, in awakening a just appreciation of trees first among pupils, and through them upon the parents and people at large, is of the greatest importance.

The youth of our country must be instructed upon the value and utility of our forests, and correct sentiments in regard to trees must be implanted in them if the best interests of our country in regard to forests are to be promoted.

The valuable educational influence of arboriculture, physical, moral and intellectual, upon children is of first importance, and for this reason also this subject should engage the attention of those interested in the welfare of our schools.

I desire, therefore, to urge upon school commissioners, trustees and teachers, the importance of doing all they can to make the celebration of Arbor Day interesting, instructive and successful.

The day will be observed as a holiday in all the schools of the province, and school commissioners should do all they can to promote the celebration of Arbor Day by the schools of their respective municipalities.

Teachers should prepare the way for the celebration of Arbor Day, by giving their pupils brief talks upon the value and beauty of trees, pointing out how they beautify the school grounds, the home and the way side, how they absorb and destroy poisonous gasses and dangerous effluvia which may be in or around crowded buildings; how they effect the climate, soil, and productions; how they give out moisture to the atmosphere and retain moisture in the soil and feed the springs and rivers and so conserve our water supply and prevent floods. Thus taught, the pupils will engage in the work of Arbor Day with peculiar pleasure and the plantings and improvements made will be sure to be protected. The school grounds should receive the first attention. Teachers and pupils should work together in planting carefully selected trees, shrubbery and flowering plants, so as to make the school grounds as attractive as the best homes of the pupils. The parents should be encouraged to adorn and improve the surroundings of their homes by planting shade trees. Trees should also be planted by the wayside, where their shade and beauty will be grateful to the traveller, and specially so to the owner and planter.

Arbor Day may thus be made an occasion of real pleasure to pupils, a day of social enjoyment and improvement, if parents and pupils meet on common ground, and young and old share in their efforts to adorn and improve the surroundings of their homes and schools.

I am sure that all those connected with our educational work will gladly co-operate with the Government and with the Forestry Association of the Province in their laudable effort to create an enlightened public sentiment upon this important subject.

GEDEON OUIMET,
Superintendent

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Mar. 1885, compared; and also for the two months ending Feb., 1884 and 1885, compared:

MONTH ENDED 31ST MAR. 1885.

| *Timber (Hewn).* | *Quantity. Loads.* | *Value. £.* |
|---|---|---|
| Russia | 779 | 3,975 |
| Sweden and Norway | 47,797 | 64,135 |
| Germany | 7,344 | 14,436 |
| United States | 13,464 | 46,443 |
| British India | 2,896 | 38,919 |
| British North America | 1,035 | 4,379 |
| Other Countries | 27,603 | 27,926 |
| Total | 100,918 | 200,213 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 1,856 | 3,798 |
| Sweden and Norway | 48,033 | 107,117 |
| British North America | 764 | 1,813 |
| Other Countries | 27,788 | 87,051 |
| Total | 78,441 | 199,779 |
| Staves, (all sizes) | 5,512 | 25,745 |
| Mahogany (tons) | 6,587 | 58,714 |
| Total of Hewn and Sawn | 179,359 | 399,992 |

THREE MONTHS ENDED 31ST MAR. 1885.

| *Timber (Hewn).* | | |
|---|---|---|
| Russia | 4,088 | 11,287 |
| Sweden and Norway | 75,488 | 106,320 |
| Germany | 16,878 | 36,494 |
| United States | 24,734 | 87,414 |
| British India | 8,425 | 114,441 |
| British North America | 1,352 | 5,330 |
| Other Countries | 100,641 | 188,401 |
| Total | 231,556 | 494,687 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 7,355 | 14,561 |
| Sweden and Norway | 82,628 | 182,702 |
| British North America | 12,206 | 26,038 |
| Other Countries | 58,490 | 184,305 |
| Total | 160,679 | 407,601 |
| Staves (all sizes) | 12,118 | 62,271 |
| Mahogany (tons) | 19,604 | 171,955 |
| Total of Hewn and Sawn | 392,235 | 902,288 |

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, April 14, 1885, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 925 F. St., N. W., Washington, D. C. :—

315,686.—Lathe tool rest—O. C. White, Worcester, Mass.

315,663.—Saw—C. Richardson, Newark, N. J.

315,755.—Saw buck—S. Walter, Dallas City, Ill.

315,715.—Saw sharpening machine—L. Bush, jr., Chicago, Ill.

315,820.—Saw swage—T. Newnham, Wainwright, Ga.

315,539.—Saw swage.—A. S. Parke, Bay City, Mich.

315,853.—Saw tooth—N. W. Spaulding, San Francisco, Cal.

315,502.—Sawing machine, circular—L. Houston, Montgomery Station, Pa.

315,513.—Sawing machine—R. E. Kidder, Worcester, Mass.

315,509.—Wooden vessels, machine for cutting—W. D. Johnson, Elmore, Ohio.

PATENTS ISSUED APRIL 21.

316,296.—Plane—L. C. Rodier, Detroit, Mich.

316,079.—Plane—J. A. Traut, New Britian, Conn.

316,156.—Planing machine attachment—H. Leverentz, Brooklyn, N. Y.

316,109.—Planing machine, cross bar shoe for—B. Bean, New Haven, Conn.

316,273.—Saw mill dog—D. Lane, Montpelier, Vt.

316,299.—Saw mill set works.—W. H. Snyder, Waynesborough, Pa.

316,113.—Saw swage—A. Carmichael, La Crosse, Wis.

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### Quebec Timber Fleet.

The London *Timber Trades Journal* says:—We learn that towards the end of last week a somewhat unexpected general movement took among the Quebec timber fleet, which has been laid up during the winter in the harbors of Greenock and Port Glasgow; and notwithstanding the continued low rate of freight offering, most of them are now being prepared to proceed on the spring voyage and take their chance of a better freight being obtained at Quebec. Within the past few days two or three ships have, we understand, been fixed at 19s.; and 6d. more has since been offered other owners, but refused.

### The Effect War Would Have.

The imminence of a great war, which is likely to shut out from our markets an entire year's Russian supply of timber, should give a considable impulse to the home trade, as our Russian supply was equal to about five-sixths of our whole importation from British North America last year; in round numbers, 1,350,000 loads, a large bulk to be stopped from a year's importation of about 6,000,000 loads. The sale by Messrs. Churchill & Sim, on Wednesday and Thursday next, will doubtless benefit by the news, especially as the bank rate of 3½ per cent remains undisturbed as yet. It is not easy to see how any pease can be patched up under the present circumstances, as England must make a bold stand for her Indian possessions.—*Timber Trades Journal.*

### Forest Fires.

Waterford, N. J., April 21.—Large tracts of valuable timber, cranberry marshes, and a number of buildings have been destroyed by the forest fires which started yesterday. At Winslow, Camden county, a big fire is raging in a large cedar swamp, and thousands of dollars' worth have been consumed. At Pomona, Atlantic County, thousands of bushels of charcoal and hundred of cords of wood, valued at thousands, have been destroyed. Advices from Williamstown, Gloucester county, state that disastrous fires are sweeping hundreds of acres of growing timber. Several houses are endangered. Great damage has already been done.

A young man named Harry Hunt was killed by a falling tree in one of Mr. P. McLaren's shanties on April 13th.


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### Want an Outlet.

A correspondent of the Toronto *Globe*, writing from Vankoughnet, Muskoka region, Ont., says:—"I have seen an advertisement of their being 1,000,000 feet of hardwood lumber of different kinds wanted in Toronto. We would like very much to give them their supply, as we have any amount of black birch and bird's-eye maple, and other valuable timbers that we could cut into lumber and ship to the front if we only had the convenience of a railway. We have amount of railway ties and hemlock bark, etc. We have two or three good mill sites on the Black river, and if we only had the convenience of a railway to connect with it we would be able to do a thriving business. If we had a branch line here from Gravenhurst, a distance of about 14 miles to the Black river, it would be of great value to us."


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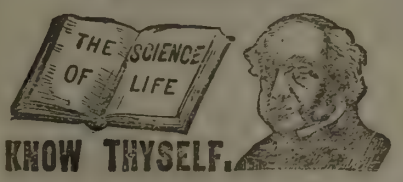


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This book should be read by the young for instruction, and the afflicted for relief. It will benefit all. —*London Lancet.*

There is no member of society to whom this book will not be useful, whether youth, parent, guardian, instructor or clergyman.—*Argonaut.*

Address the Peabody Medical Institute, or Dr. W. H. Parker, No. 4 Bulfinch Street, Boston, Mass., who may be consulted on all diseases requiring skill and experience. Chronic and obstinate diseases that have baffled the skill of all other physicians a specialty. Such treated successfully without an instance of failure. HEAL THYSELF

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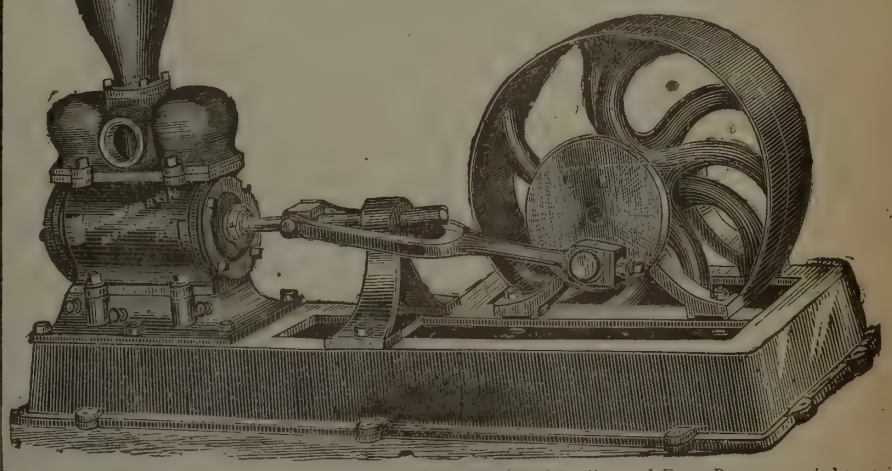

The above cut shows our Double-Acting Brass-Lined Horizontal Suction and Force Pump, mounted on a Cast Iron Bed Plate with tight and loose pulleys, 4 inch face, 18 inch diameter. This is one of the most compact and powerful pumps of the kind yet out, with Bed 4 feet long and 2 feet 2 inches, where the pulleys are placed, all being in good proportion. The pump has a guide to the piston rod, and is driven by the connection rod attached to the disc with steel pin and wrought iron connections. The valve seats and valve are made of gun metal, and easily got at by bolts on either side of the pump, so that access to the bottom or top valve can be had without any difficulty. We make two sizes of these pumps, which are adapted for mills, factories or tanneries. We make these pumps with a clutch to drive them direct, when so ordered, and dispose of the pulleys and belt. All enquiries will be promptly answered, by addressing the above, and catalogues of our pumps sent out. 3ml5.

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### ARKANSAS PINE AND CYPRESS.

LITTLE ROCK, Ark., April 6.—The variety of yellow pine found in the forests of Arkansas is of the short leaf description which occupies a position midway between the long leaf pine and northern white pine, and is used all over the south for flooring, weatherboarding, bill stuff and other uses to which lumber is applied. It is clear in color and has a beautiful grain when finished with shellac. It is estimated that there is in this state 40,000,000,000 feet south of the Arkansas river, of this variety of pine, much of which find a ready market in Texas, Kansas, Missouri and Illinois. Its weight (dressed strips) is about 2,300 pounds per thousand. It is free from pitch and softer than long leafed pine. It makes a better floor than white pine, and can be delivered north as far as Chicago, or west to Kansas, for about one-half the cost of white pine. Its durability, strength and other good qualities, must soon make it an active competitor for these purposes with white pine. It is pushing its way into Kansas, Texas, and the north and northwestern markets.

There are three kinds of cypress in the South, white, yellow and black. The variety found in Arkansas is the white; the yellow and black grow in Louisiana and along the gulf states. The white variety is soft, clear grained and light in color. It is used all over the south for sash, doors, blinds and all kinds of finishing lumber. It is also used for shingles. It stand the weather better than white pine, does not warp or twist, and does not shrink or swell after being once thoroughly seasoned. Exposed to the weather it will last twice as long as white pine, makes a better shingle, and better tank stuff, fence posts, etc. I have doors in my house that were made seventeen years ago of this timber (about the first made here), and not a single joint has yet opened sufficient to crack the paint. My outside doors are to-day as true and solid as when they were made. It works nearly as easily as pine, but is a little harder on tools, I am told.

This timber grows very tall, straight and thick, in isolated patches, in shallow swamps or lakes, usually in from one to five feet of water. The trees are felled in the water, and cut off in full lengths, and towed to the mill, which is generally on the bank of the brake, hauled up and cut into any length of logs required. There is generally enough timber in one of these brakes to justify putting a mill upon it. Brakes can be found here that contain from 25,000,000 to 100,000,000 feet. This variety of cypress is limited in quantity. There is not probably more than 2,000,000,000 or 2,500,000,000 feet in this state. Louisiana, Mississippi, Alabama, and Florida have large quantities of yellow and black varieties, but little white. Cypress has stayed the importation of white pine here entirely, and gives entire satisfaction wherever used. It has risen in price for local uses from $10 to $30 in the last five years, and I fail to see why it should not, in the near future, go to the price of white pine that could be laid down here, say from $45 to $55.— *W. in Northwestern Lumberman.*

### AN ARTIC WOODLAND.

Popular impressions are often far from the truth, and in regard to the Arctic regions they are undoubtedly so. A treeless land would be, in the opinion of most people, the idea which would suggest itself in regard to the regions in question. Yet this, though true, is not all the truth. Within the Arctic circle are found trees often forming considerable, though stunted, forests. In eastern Siberia pines and other trees come down almost to the water's edge; while over all western Siberia, Arctic Russia, and Lapland, the tree limit runs within the Arctic circle; trees extend even to the North Cape In Greenland we find, even in the most southerly parts of it, no herbage more worthy of the name of tree than the stunted birch, which, in the more sheltered valleys of that country—equally inappropriately named with Iceland—attain the proportion of little shrubs; and it is not until we come to the milder latitudes of the Pacific that the tree line, which had described a southerly curve in the cold regions of Central North America, again rises to the north, and until we reach the shores of Behring Strait we we find nothing which we can dignify by the name of trees. * * * The wooded banks of the Yukon touch the Arctic circle, and forests of white spruce are found on the Noatak, a river which falls into Eschscholtz Bay, which infringes on the Arctic circle. In Lapland the spruce ceases at about the 68th parallel, and Scotch fir at the 69th; but in Norway, owing probably to the warm Gulf stream, which sweeps along the coast and into the Arctic sea—at least as far east as Nova Zembla—we find forests of Scotch firs, 60 feet in height, as far north as Altenfjord, and birches, about 45 feet high, in an equally northern latitude. In 70° 28' the hardy Scotch fir smill maintains its ground, though the spruce fails a degree or so further south. In the vicinity of Hammerfest, a well known Lapland town, in latitude 70½° N., there are dwarf alders and aspens, bird cherries, rasps, and currants. In the Scandinavian peninsula, probably owing to the warmth which a sea, unincumbered, and in addition laved by a current of a higher temperature affords, barley is cultivated as far north as the 70th parallel, the latitude of Disco island on the Greenland coast, and was up to the 65th "in sheltered valleys, where rocks and cliffs reflect the sun's rays with much power."—*Woods and Forests.*

### BEECH TREES AND BEECH-NUTS.

The beech is one of the most valuable and celebrated trees indigenous to the Northern Hemisphere. It is true that the American Beech has not been so widely celebrated in story and song as its European namesake, still, it is in no way inferior, or less worthy of all the praise that has been bestowed in centuries past upon its near relative of the old world. Our American Beech (*Fagus ferruginea*), as found in nearly all of our Northern forests, is a noble tree with an exceedingly graceful habit; for while the main branches are very strong and sturdy, they are always furnished with an abundance of small slender branchlets, that give to the tree a graceful outline, no matter how large or old the specimens may be. The bark of the tree is also somewhat peculiar, it being smooth, with no cracks, fissures, or corrugations, to hold dust or afford lodgement for mosses and lichens. The stem of the beech tree is a solid, firm and smooth column, almost as rigid as marble, and far more valuable than stone. This smoothness of bark extends to the minutest twigs, and even the buds in winter; and the expanded leaves in summer are smooth and glossy. To call the beech a "clean tree" is but faint praise; for, in addition to its neatness in appearance, it is peculiarly free from insect enemies and is seldom injured by these pests. Even the dead-trees are not very attractive to the wood-destroyers of the insect kingdom. The beech is also a very hardy tree, thriving in very cold regions far to the northward, and its flexible and tough branches withstand high winds well, when planted in exposed situations. It will also thrive in very thin soils, rocky or otherwise, the roots keeping near the surface, and are so numerous that thep will penetrate the smallest interstices among the rocks, and seek every spot where nutriment can be found. Any one who has had experience in clearing a beech forest will bear me out in saying, that beech roots will fully occupy all the land within their reach.— *A. S. Fuller in American Agriculturist for March.*

### SAW DUST AS FUEL.

"As utility seems to be one of the characteristics of the day," says a correspondent of our eastern namesake, "It may interest the inexperienced to know how to make that that evergrowing 'pile' (of sawdust) a source of profit. For years I have not wasted any of it, and find its use the saving of a large per centage of wood. Our mill has a 42-inch boiler, 22 feet long, with two return flues. Our cylinder is 12x24, cutting off steam at half stroke, the motion being regulated by a Judson valve. The engine makes 80 revolutions per minute, driving a six foot circular saw making 300 revolutions per minute. The steam blows of at 120lbs., using green wood and burning all the walnut, oak, poplar and gum dust the mill makes, and easily maintaining the steam at the point named. Cypress dust contains more water than any we have; and once I had a lazy fireman who thought he could not burn cypress, and so he let the pile grow until it frightened him away from the mill, when I took the shovel and in three days caught up.

"Several years' practical work has taught me that sawdust needs a tight fire-front, a strong draft through the grates, wood to prevent it packing, unless the boiler is longer than the usual size, and the chambering alluded to above, in order for the gaseous matter to reverberate and produce a perfect combustion. After our furnace becomes hot the utmost crowding of dust does not show the least sign of smoke at the chimney top; this non-appearance is conclusive evidence of perfect combustion. In firing dust never stir it, unless it be with a small rod, to make a road for the flame; after firing half a day without stirring, I have gathered as perfect cinders as from a smith's forge. I have taken the shovel from an inexperienced hand when steam was down to 75 or 80 pounds, and gradually raised it to the blowing off point with little besides dust.

"I once visited a friend who was carting all his dust out from the mill, and on asking the fireman why he did not burn it, I was told: 'It smokes the fire out,' and from the small pace underneath the boiler it was quite evident that gaseous matter would be half strangled in 'running the gauntlet' to the outer world. I sketched the plan alluded to and gave my friend the reasons why that must come nearer a producing a perfect combustion. He ordered the mason to re-construct the walls, but he, true to the way he had learned, at first refused, and nothing could convince him of his prepossession but the sight of the living flames rolling over the walls and filling the chambers, and that from the same kind of dust that was said to have smoked the fire out. In two months I saw my friend again, and he said that all the dust went under the boiler with ease; and in that time the slabs, as they were thrown off, had reached the top of the first story of the mill; it not needing them, while before it took all of them. If possible, let some one who has handled the dust shovel show a more perfect way of economy of fuel."—*Wood-Worker.*

### WASTED FORCES.

Those who have enjoyed the pleasure of travel by water both at home and abroad must have wondered at the immense power allowed to run to waste on our larger rivers, which, practically could be made to do more work than is now done by the combined steam power of America.

Among the pineries of Michigan we heve seen since last year began, sufficient power wasted in the onward course of some of the streams used only for rafting, to convert all the logs cut in that State for five years into shavings. A stream running only five miles per hour has a power, which if harnessed and controlled, would baffle our mathematical calculations in estimating the horse power. In fact, we can imagine how many horses it would take, less the friction, to carry from the mouth to the source the aggregate number of gallons of water any stream carries to the ocean, and this would give but a faint conception of its actual value as a motive power if utilized. Again, the crude manner which we use this power in floating logs and rafts of lumber would be augmented by the natural gravity of the load's weight; to illustrate let us suppose a large raft of logs loose in any of the larger northern streams, where the water is running in the channel, how long would the combined belts used to-day in the mills of Michigan hold this raft steady in one place? We anticipate the answer, there, of course, the power is correspondingly great. Another feature, suppose with some smooth line a large raft was attached to a drum, and these forces of nature allowed their natural sway, does any one doubt for a moment that the power thus generated could be estimated by a comparison with a number of horses? No, it would stagger the belief of the best engineers and mill operators; still it must be remembered that no small portion of the stream's force is allowed to pass the raft below and on either side.

Who in his boyhood days has not affixed the little water wheel to the log across the stream and excited his childish wonder at the result? Later, have we not all read of and many of us seen the crude appliances brought into requisition to utilize the force of gravity of a loaded car going down the inclined plane to bring back the empty up the plane for another load, and seen the pressure needed—wasted force—to keep the drum at the top from running too fast? A short time ago what was considered an obtuse, ignorant laborer in the construction of a large bridge noticed the power lost in removing the stone from the river bank down to the water's edge; he arranged an ingenious contrivance attached to the lifting crane, and this power was made to lift the stone bodily to its place in the courses away high on the piers, and to help materially in elevating them to the very top; and some day we will all be astonished that some hewer of wood or drawer of water will so harness the forces present in some of our rapid streams, that the timber placed in at the head waters will gradually float downward to market, and by the time it reaches its destination, instead of the rough, ungainly log, will all be worked up by its own gravity and the power of the water in seaking its level alone, into merchantable commodities, the refuse all utilized, and everything so well balanced that by the time the market is reached the last vestige of the wastes will have disappeared, thus disposing of the three great factors now regulating the price of all wooden things, namely, power, transportation and waste.—*Lumber World.*

### Worn-out Boilers.

Whoever said the following, "told the truth": "It would be a saving of life, I think, to oblige everybody to know that steam boilers wear out; that their strength continually decreases. Every day a boiler is used it becomes weaker than the day before. Boilers should be kept clean, though cleaning them does not strengthen them. When a rotten sidewalk goes down with a man, he sustaining serious injuries, damages are demanded and allowed, but when a rotten boiler goes up the case is different. Low water, undoubtedly, the man should have had another pail full of water in the boiler, you know.—*American Miller.*

THE winter has been a hard one upon the stock raisers and holders, but it has been very good for lumbering, the best for several seasons. The snow had fallen and lain evenly. Mr. Robinson and a gang of men went north on Wednesday to the head waters of the Mississippi, in order to commence for Mr. McLaren the drive of timber towards Carleton Place, as soon as the creeks and streams were clear of ice. Mr. McLaren has, it is stated, got out over 200,000 pieces of timber. Mr. Caldwell's cut is not known, but it must be almost as great as that of Mr. McLaren's.—*Kingston Whig.*

### Fire at Collingwood.

COLLINGWOOD, April 20.—Warren, Tobey & Co.'s tannery was destroyed by fire to day. Loss, $40,000 to $50,000. Twenty five men are thrown out of employment. Insurance:—North British and Mercantile on building, $2,724, on machinery, $1,819, on stock, $5,457; Phœnix, on building, $1,092, on machinery, $727, stock, $2,181; Royal, on building, $1,092, on machinery, $727, on stock, $2,181; Commercial Union, on building, $1,092, on machinery, $727, on stock, $2,181, and $4,000 extra in North British, making a total insurance of $27,000.

**"All Men are Liars."**

said David of old. He was probably prompted to make the above remark after trying some unreliable catarrh remedy. Had he been permitted to live until the present day, and tried Dr. Sage's Remedy, he might have had a better opinion of mankind. We claim that no case of catarrh can withstand the magic effects of this wonderful medicine. One trial of it will convince you of its efficacy. By druggists; fifty cents

**Advice to Mothers.**

Are you disturbed at night and broken of yo rest by a sick child suffering and crying wi pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhœa, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.'

# Chips.

A SAGINAW firm purchased 2,000,000 feet of pine logs, recently, at $6 a thousand.

A LOCAL paper states that the north Ludington Company, this year paid the largest tax of any interest in Menominee county, Mich.

AMONG the orders lately received at the Cadillac, Mich., veneer mill, was one for elm orange boxes, to go to Spain.

ONE day lately, the Montague, Mich., wooden butter plate factory turned out 96,000 plates, one nimble girl doing 15,000 of the total.

THE Grand Rapids & Indiana railroad will survey a line into the great tract of pine east of Kalkaska, Mich., early in the spring.

A BIRCH tree, sound to the core, was lately cut at a point south of Houghton, upper peninsula, Mich., that was fifty two inches in diameter.

A PINE tree cut on M. B. Farrin's land, near South Boardman, Mich., made four 12, and four 16 foot logs, and scaled 9,979 feet, board measure.

A PULLEY heated and burst in Baker Bros.' saw mill at Blenheim on April 6th. One piece struck John Graham, a member of the firm, in the eye, completely cutting his eye out.

A FINE tract of 200 acres, in Lake County, Mich., estimated to have on it 5,000,000 feet of pine, was recently sold at $10,000 or $2 stumpage.

J. H. LESH & Co., Goshen, Ind., recently paid $300 for a single black walnut tree. It is said to be the largest ever cut in Elkhart county, and scaled 8,000 feet.

W. & O. J. PHELPS, St. Cathrines, Ont., interested in saw mills, lumber yards, spoke factory and timber limits, have failed. Liabilities $75,000; assets not ascertained.

ELLIOT BROS' saw mill, Westminster township, Middlesex Co., was burned on April 2nd. A flaw in the furnace was the cause. The contents were also burned, but the lumber was saved. Loss, $1,000; no insurance.

THE Cheboygan Lumber Company, with mills at Cheboygan, Mich., has about concluded the purchase of 80,000,000 feet of standing pine in the Georgian bay region. It is the intention to cut the timber and float it to Cheboygan to be manufactured.

THE Duluth *Herald* is responsible for the statement that the log crop in the Duluth district has been curtailed to such an extent that the lumber cut the coming season will be only about 50 per cent. of that of last year.

SEVERAL vessels have been chartered to move square timber from Marquette, Mich., to Garden Island, Ont. A large number of sticks have been got out the past winter along the line of the Detroit, Mackinac & Marquette railroad.

DON. J. LEATHERS, of Grand Rapids, Mich., recently sold to the West Michigan Lumber Company a tract of pine in Newaygo county, Mich., comprising two sections, at a consideration of $50,000. It is estimated that there are 15,000,000 feet of standing timber on the tract, two-thirds of which is pine.

W. L. & H. D. Churchill, of Alpena, Mich., have made arrangements for 13,000,000 feet of logs from Alcona county (Huron shore south), which are to be towed to their mill at Alpena to be sawed. Otherwise, these logs would have gone to Lake Erie ports. This firm expects to keep both its mills going this season, and manufacture 35,000,000 feet of lumber.

WITH respect to lumbering in Westmoreland and Cumbetland counties, on the isthmus joining New Brunswick and Nova Scotia, the Chignecto *Post* has the following:—"The outlook in business circles in Baie Verte and its surroundings is somewhat flattering; lumbermen have got out a large quantity of logs, perhaps more than in any winter before. Milton Anderson has out some 1,300, and is about commencing to cut them up into deals. D. E. Casey & Son, 4,000, R. D. Wood and C. Prescott some 6,000, much of which will be made into hooks for lobster factories along the coast. Copp Bros., Baie Road, have out some 10,000 logs, being made into deals and boards. Henry Oulton, has out some 2,000 and a number of other persons have smaller lots, which will amount to several hundreds, and the deal market has advanced."


**Catarrh—A New Treatment.**

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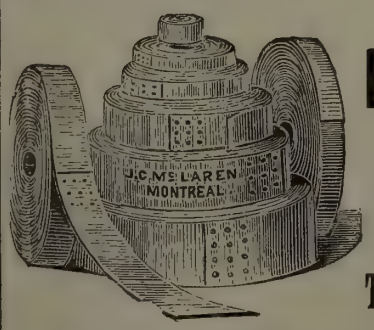


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# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

APRIL 24.—The advent of fine weather has had the effect of stimulating trade in a truly wonderful degree, and new buildings are started in all quarters of the city, and the universal impression is that work for all mechanics will be abundant, and the retail yards will have nearly all the orders to fill which they will be able to send out. The figures for bill stuff at the mill remains firm, and yard men are disposing of stuff from their yard at figures that they will not be able to replace the same class of lumber or. Mill men seem to have the whip hand at present on dimension stuff, as but few of them have the right class of timber to cut bills, and make it pay. Of the coarser grades of boards and plank there will be enough and to spare, therefore we need not look for any advance in prices on that class of lumber.

Our bay it not yet free of ice, but there is sufficient open water to enable vessels to get to the N. & N. W. R. R. docks, at which the brig Jessie Dummond is now being loaded by Messrs. Christie, Kerr & Co. This vessel was kept steadily going during most of last season by the same firm; her cargo is 275 M. Other crafts will doubtless load as soon as the month expires, although the quantity of lumber to go from here until the new cut is ready is quite small.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| ound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1½ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

APRIL 25.—There is no change in the general situation of trade, the summer business has not yet begun although there is a little more going out, but it is not expected that large quantities will be moved until navigation is fairly opened, of which there is a prospect in a few days, as the the ice on the river has shoved and is completely broken up, and unfortunately has caused a serious flood in Griffintown and Point St. Charles, and stopping all business in these parts of the city. The demand in the Western States is good and prices have advanced from $1.00 to $1.50 all around. A good deal of common lumber has been sold in the Ottawa county, but the demand is not so lively as it is likely to be further on, all the good lumber there having been sold. Nothing doing here sufficient to cause any change in values, and we still quote ex yard as follows:

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Bass, " " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 75@ 2 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

CORDWOOD.

Business is very quiet and stocks large enough to do nearly all summer, prices are steady and unchanged, although tamarac is dearer in proportion to other woods. We quote at the railway station ex cartage:

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

SHIPPING.

Prospects are good for a large business being done this summer, and we hear of a number of vessels having already been chartered for the River Platte, at $13 to $13.50. It is thought if Russian war goes on, it will create a good demand for deals in England and benefit trade on this side.

LIVERPOOL MARKETS.

The uncertainty which has existed for some time as to the result of the present political complications has caused great quietness in the lumber trade for the past month.

SPRUCE DEALS.—Several parcels of St. John, N. B. (yarded) were offered by auction, but only a few lots sold, viz.:—3x7 at £5 10s. to £5 12s. 6d.; 3x9 at £6 2s. 6d. to £6 7s. 6d.; 3x11 at £6 5s. to £7 5s.; also a cargo of Miramichi: 3x7 at £5 2s. 6d. to £5 12s. 6d.; 3x9 at £5 10s. to £6 10s.; 3x11 at £6 5s. to £7.

QUEBEC WOOD GOODS.—A number of sales are reported to have been made on contract, and it is understood that most importers have now filled their requirements for spring shipment.

## BOSTON.

The *Journal of Commerce* of April 25th says: The milder weather has been favorable for trade and an improving business is reported, although it is not yet very large. White pine moves rather slowly in competition with whitewood, and coarse grades go especially hard. Southern pine is quiet and unchanged. Really good walnut is scarce and in demand. Other kinds of hardwood are as before.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## WINNIPEG.

The *Commercial* of April 25th says:—Although there has been a moderately active demand for lumber during the week business is not yet in that active state it should be in at this season of the year, and this may be attributed to the generally unsettled state of matters in trading circles. The season's business does not promise to be a very heavy one, but there is less of a reckless feeling about prices than there was a year ago, and there is reason to believe that it will be a much more profitable one than 1884.

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ⅝ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, ⅝-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@43 00 |
| White wood, ⅝-inch | 30 00@32 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | ¼ 00@ 4 00 |
| " clear, " | 0 00@ 3 50 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ℔ M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 00 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in quotations. The ice is still very heavy in front of the harbor, and navigation is not likely to be opened before May 1st.

| | |
|---|---|
| Three uppers | $44 00@46 00 |
| Picking | 34 00@36 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 0 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LONDON.

The *Timber Trades Journal* of April 11th says:—There is a very fair chance of business improving now that the Government dock yards are active, and the withdrawal of many of the leading Atlantic liners from the passenger trade for conversion into armed transports will undoubtedly come to the assistance of freights. That the dock stocks show disadvantageously for the present spring is due rather the falling off in consumption than to the excess in import. Still we have to encounter in the present piles an excess of nearly 150,000 pieces of north of Europe deals on the April stocks of last year, and 125,376 pieces of battens from the Baltic ports, ends also being heavier in much the same proportion, the total excess in the present stocks of Baltic sawn goods being 409,936 pieces, about equal to 5,000 standards.

The consumption in pine goods, to judge by the relative proportions of the stocks of the 1st of March and those now under notice, seems to be maintained. Battens, however, of this last description, do not appear to be much inquired for, and we note there are now in the Surrey Commercial Dock Company's hands some 84,271 pieces, as against 58,000 that were there 12 months ago.

The most marked reduction is, however, on the stocks of prepared flooring boards, which, it will be remembered, were so oppressive at the back end of last season. Not taking account of the vessels now discharging, we find when the list was made up on the 31st of last March there were in the Dock Company's sheds 3,581,819 pieces of flooring, against 3,649,781 pieces that were in store on 31st March, 1884. This shortage is favorable to the present state of the market, and now that the ports are open is likely to have a favorable effect on prices, which, as observed at the last public sale, already show signs of hardening. If we include the cargoes not taken into stock when the returns were made up, the difference will be even more marked, as we shall have to put over a million and a half pieces to the credit of 1884, and barely 800,000 pieces to the present spring stock. What shape the first open-water shipments from the flooring ports are likely to take will soon be now apparent, but till the question of war or peace is definitely settled it is hardly probable that the Norwegian houses will be so foolish as to press their goods upon this market. Any interruption to the trade between Russia and Great Britain will be to them, as a neutral power, commanding one of the second mercantile navies of the world of incalculable benefit, and as Russian and Finnish goods get scarcer and scarcer, the stocks in Norway and the sister Kingdom (Sweden) will become more valuable.

In fact, it is somewhat surprising that Swedish shippers have not already raised their prices; but we understand they are so fully impressed with the belief that England will yield to Russia, and consequently no war take place, that they are disinclined to advance prices without they are sure of being able to maintain them—more so as the London market presents such an impassive attitude.

Reverting once again to the outlook, the indications are towards a revival of trade. The present rise in freights and insurance will react favorably on values generally, and when once the London trade does make a sign, the change in the aspect of affairs will not remain long in doubt.

## LIVERPOOL.

The *Timber Trades Journal* of April 11th says:—The resumption of business after the Easter holidays has not been marked by any increased activity in the market, the uncertainty attending the course of political affairs apparently being as intense as ever, and exerting effects as depressing as any experienced since the trouble began. Meantime buyers are only covering their most pressing and immediate wants, although prices are all in their favor; hence the actual amount of business transacted is confined to a small consumption composed of comparatively trivial orders.

The statistics of the import, consumption, and stock of timber, &c., in Liverpool at the end of last month, as shown in the table, show how limited the trade is at present. Compared with the corresponding month of last year the total quantity of square timber taken into consumption is less by one-half, whilst in deals, flooring, &c., there is little difference to speak of; but as Liverpool is essentially the market for square timber, the diminished demand for this description is severely felt, especially as stocks of all kinds are ample.

Fortunately the import is lighter than usual, and this relieves the market in some degree from the necessity of making forced sales, which were so prominent a feature the early part of last year.

The freight market is stiffer again, with few ships offering, owners of sailing vessels having evidently come to the conclusion that with the present low rate of freights offering, especially for Quebec, they have nothing to lose by waiting, and in the event of war breaking out they would be able to demand increased rates, as the employment of large quantities of steam tonnage for transport services would relieve the overstocked market of the present glut of steamers. Moderately-sized sailing vessels are wanted for the pitch pine ports, but there is evidently great difficulty in obtaining them at anything like the rates recently current, and on this account few sales can be carried through at c.i.f. prices, as shippers decline to sell unless they have vessels firm in hand to bring on their contracts.

## LEITH.

The *Timber Trades Journal* of April 11 says: The arrivals this week are a little more numerous, including a cargo of pitch pine, one of Memel redwood, and four cargoes of deals and battens. The strike among the ship-joiners has come to an end, after lasting for some weeks, thus allowing the few contracts that are on hand to be pushed forward.

The imports from Quebec will be very moderate this spring, waney yellow pine being still held in considerable quantities in this district. Trade still remains in a very sluggish condition, joiners and builders only buying sufficient for their immediate wants; the arrival of new goods may, however, bring about a little briskness.

Last Tuesday Messrs. Park, Dobson & Co. held their usual annual sale. A large company turned out, chiefly composed of country buyers, although town element was by no means lacking. A large quantity of stuff changed hands, very fair prices being realized. Several sales are announced, the first taking place on the 14th inst.

## GLASGOW.

The *Timber Trades Journal* of April 11th says:—A statement of stocks on hand at Clyde ports is appended. The consumption during the past quarter of the various descriptions of Quebec log timber specified below amounts to

15,372 loads, ascertained by comparison with the stock on hand at 31st December last, there having been no arrivals from Quebec in the interval. Of Quebec deals the quarter's consumption has been 2,079 standards, pitch pine logs, hewn and sawn, 7,600 loads, and pine deals 770 loads.

A public sale, as noted blow, was held at Greenock on 2nd inst., at which there was a good company, and transactions were of considerable importance, about 600 logs changing hands, besides parcels of deals.

AUCTION SALE.

On 2nd inst., at Greenock, Messrs. Singleton, Dunn. & Co., brokers :—

| | Per c. ft. |
|---|---|
| Quebec waney boardwood— | |
| 41 to 50 c. ft. av. per log | 1s. 10d. to 1s. 11d. |
| 36 " | 1s. 8½d. |
| Quebec yellow pine— | |
| 35 to 74 c. ft. av. per log | 1s. 1½d. to 1s. 2½d |
| 40 " | 1s. 0¾d. |
| 29 " | 1s. 0½d. |
| Quebec red pine— | |
| 49 c. ft. av. per log | 1s. 3d. & 1s. 3½d. |
| 40 " | 1s. 1¾d. |
| 35 " | 1s. 1d. |
| 30 " | 11½d. |
| Quebec birch (20 logs)— | |
| 15 c. ft. av. per log | 1s. 1½d. |
| Quebec oak (2 logs—176 c. ft.)— | 2s. 1d. |
| Hewn pitch pine— | |
| 100 c. ft. av. log | 1s. 2d. |
| 45 " | 1s. |
| Sawn pitch pine— | |
| 40 c. ft. av. per log | 1s. 1¾d. |
| Quebec 2nd spruce deals— | |
| 11 ft. 9×3 | 9d. |
| 10 " 9×3 | 8¾d. |
| Quebec spruce deals— | |
| 14 ft. 11×3 | 10½d. |
| 12 " 12×3 | 9½d. |
| 12 " 11×3 | 9½d. |
| 12 " ⅞×3 | 8½d. |
| 10 & 11 " 7/12×3 | 8d. |
| Quebec 4th pine deal ends— | |
| 6 to 8 ft. | 8d. |
| Mirbmrchi pine deal ends— | |
| 8 to 8 ft. | 6½d. & 7d. |

## LAWSON'S CYPRESS.

In a considerable collection of young evergreens, none is more satisfactory, in every respect, than Lawson's Cypress (Cupressus Lawsoniana). The pendulous branches have a remarkable feathery grace which belongs to no other tree, while the foliage is of the deepest green. This cypress is a native of Northern California and Oregon, where it reaches the height of one hundred feet or more. It was discovered in 1854 by Mr. William Murray, who named it in honor of the Messrs. Lawson, of Edinburgh, Scotland, to whom he sent the seeds. The tree is known on the Pacific Coast as Oregon cedar and white cedar, and is valued for its timber, which has a strong, fragrant odor. The wood is compact, white and very easily worked. Lawson's cypress is remarkable for the manner in which it varies from the seed. There are more than a dozen named varieties in the catalogues, differing in habit and stature, in the depth of green of the foliage, and in the markings of white and yellow. Some of those varieties are, if possible, more beautiful than the type. In the neighborhood of New York city, this tree has proved perfectly hardy. How far north of this it can be planted with safety, we are unable to say; but it is worth while to experiment with it wherever the winters are not unusually severe. In cold localities, it should be planted in rather poor soil, in order that its growth may not be continued too late in the fall. The cones in this species are about the size of large peas, and are borne in great profusion. As an ornamental tree, it may be planted wherever evergreens are required; whether solitary or in groups. It is especially suited to cemetery planting, and in England has been employed in evergreen hedges, which are so common, and so ornamental in that country of shrubs and vines.—*American Agriculturist.*

## PLANTING EVERGREENS.

A deciduous tree, the buds of which have started, is always a risky thing to handle. With evergreens it is different. They transplant better after vegitation has started and the terminal buds begin to swell. This is one reason why evergreens furnished by nurserymen with other stock early in the season, often fail. They have necessarily been dug too early, exposed perhaps to chilling or drying winds during the packing, and, though fresh and green in a appearance when received by the planter, make no start after setting out, and gradually turn brown and die. It is much better to order evergreens to be sent separately from other trees and later in the season, say during May or even June, if the season is backward and the new shoots have not made much growth. They should be fresh dug, quick packed and soon received. The tender point about an evergreen is its root. If once dried, it seldom recovers. It is very important, therefore, that the roots should be carefully protected from sun and wind. If possible, take a cloudy or showery day for handling evergreens. If the right conditions do not exist, heep the roots constantly wet and rolled up in matting. If there are a great many to be handled, as for hedging, keep them trenched in moist soil, removing only a few at a time.—*American Agriculturist.*

THE Campbellford *Herald* says :—The latest addition to the machinery of Messrs. Gilmour & Co's. saw mill at Crow Bay, is a lath mill which was put up last week by Mr. J. H. Vrooman. The premises are now is good order, and in the mill there are now in running order, a circular saw having a capacity of 10,000 feet per day, slash saws, a double edger, and the lath mill just added. Mr. Louttit, the manager, has made the old premises almost new, and everything in good trim.

A meeting of Canadians resident in New York was held in that city on Thursday night for the purpose of forming a Canadian club. A committee was appointed to procure articles of incorporation and to take other necessary steps. A considerable amount was also subscribed by those present.

* * * Premature decline of power in either sex, however induced, speedily and permanently cured. Consultation free. Book for three letter stamps. World's Dispensary Medical Association, Buffalo, N. Y.

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on April 1st 1884 and 1885, and also the Consumption for the month of Mar. 1884 and 1885 :—

| | *Stock, April 1st. 1885.* | *Stock, April 1st. 1884.* | *Consumption for the month of Mar. 1885.* | *Consumption for the month of Mar. 1884.* |
|---|---|---|---|---|
| Quebec Square Pine | 241,000 ft. | 364,000 ft. | 45,000 ft. | 90,000 ft. |
| " Waney Board | 9,000 " | 285,000 " | | |
| St. John Pine | 20,000 " | 32,000 " | 0,000 " | 1,000 " |
| Other Ports Pine | 51,000 " | 69,000 " | 2,000 " | 8,000 " |
| Red Pine | 41,000 " | 48,000 " | 1,000 " | 2,000 " |
| Pitch Pine, hewn | 568,000 " | 280,000 " | 87,000 " | 139,000 " |
| " Sawn | 505,000 " | 680,000 " | 204,000 " | 184,000 " |
| Planks | 72,000 " | 58,000 " | 15,000 " | 30,000 " |
| Dantzic, &c., Fir | 83,000 " | 86,000 " | 7,000 " | 31,000 " |
| Sweden and Norway Fir | 49,000 " | 98,000 " | 1,000 " | 22,000 " |
| Oak, Canadian and American | 188,000 " | 267,000 " | 15,000 " | 26,000 " |
| " Planks | 148,000 " | 164,000 " | 46,000 " | 75,000 " |
| " Baltic | 8,000 " | 13,000 " | 1,000 " | 0,000 " |
| Elm | 12,000 " | 10,000 " | 2,000 " | 3,000 " |
| Ash | 30,000 " | 26,000 " | 5,000 " | 2,000 " |
| Birch | 79,000 " | 50,000 " | 20,000 " | 30,000 " |
| East India Teak | 32,000 " | 55,000 " | 10,000 " | 15,000 " |
| Greenheart | 59,000 " | 82,000 " | 17,000 " | 27,000 " |
| N. B. & N. S. Spruce Deals | 22,606 stds. | 16,247 stds. | 1,944 stds. | 1,820 stds. |
| " Pine | 404 " | 2,150 " | | |
| Quebec Pine & Spruce Deals | 3,513 " | 7,620 " | 1,260 " | 997 " |
| Baltic Red Deals, &c. | 2,760 " | 4,272 " | 404 " | 367 " |
| Baltic Boards | 95 " | 60 " | 12 " | 00 " |
| " prepared Flooring | 3,247 " | 5,293 " | 738 " | 1,092 " |

MONTREAL SAW WORKS

CHAS. M. WHITLAW, Manager. MONTREAL.

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

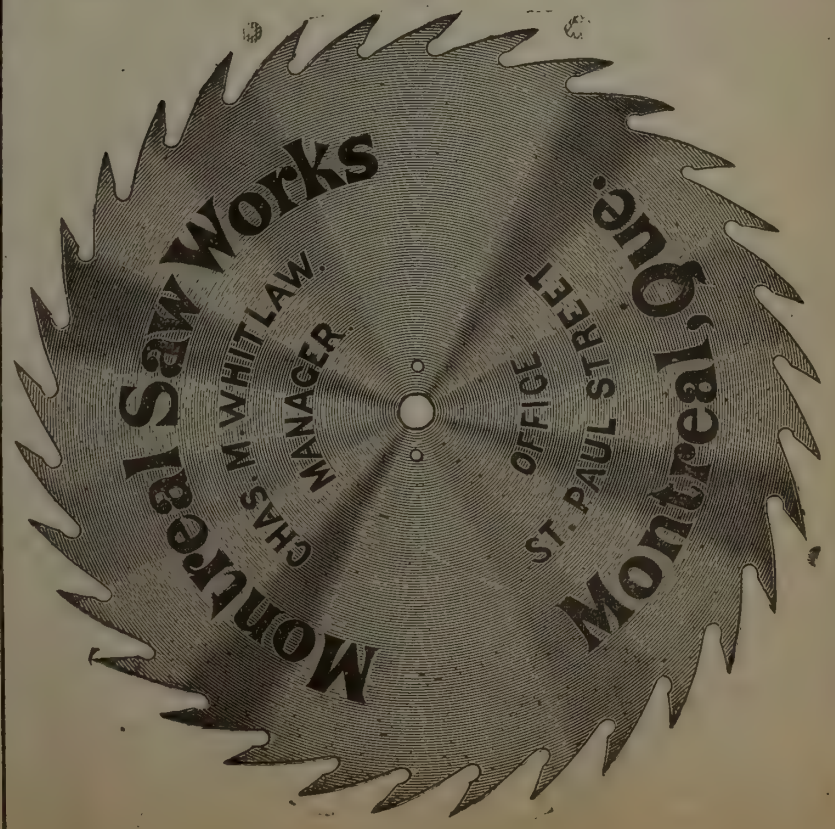
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.




Catalogues and Price Lists furnished on application.

# HARRIS, HEENAN & Co.

**124 AND 126 QUEEN STREET, - - MONTREAL.**

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

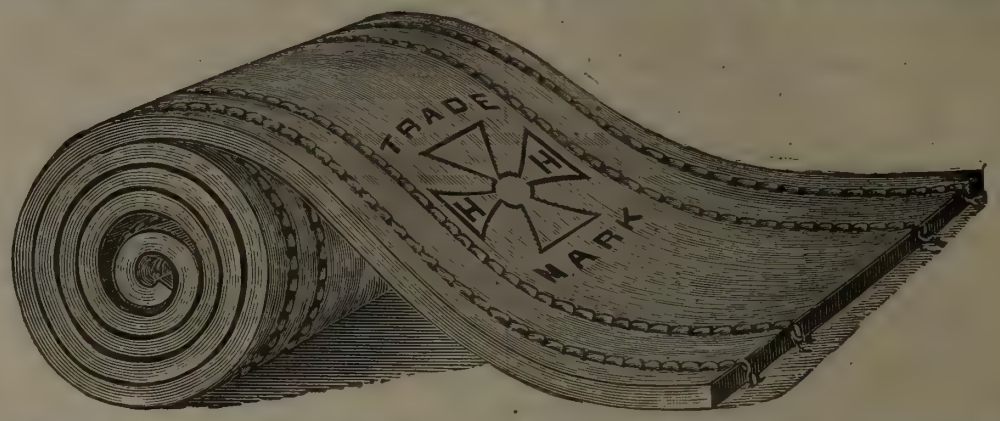
**TESTIMONIAL.**

IRA GOULD & SONS, CITY MILLS, Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




**TESTIMONIAL.**

PEEL, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 16th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co. of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33⅓ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

# Why do You Suffer when you May be Cured by Electricity?

**Without loss of time or great expense. Ten or Twenty Dollars spent in ELECTRIC BELTS will do you more good than a hundred expended any other way.**

CRYING BABIES.—Babies cry because they suffer. Their little gums are inflamed, and their bodies are more or less feverish. If you will tie around their necks one of NORMAN'S ELECTRIC TEETHING NECKLACES you will see a wonderful change for the better, their sufferings cease, and their general health improves. Ask for Norman's, and take no other, and you will be pleased. Price 50c.

FEVER AND AGUE.—Do not throw away money on worthless remedies, when NORMAN'S ELECTRIC BELTS will cure you. Use one and you will find immediate benefit. Every one is guaranteed.

LUMBAGO.—Those who suffer from this disease will find a friend in NORMAN'S ELECTRIC BELTS when all other remedies fail. Ask your druggist for it, and take no other. Guaranteed.

CONSTIPATION AND BILIOUSNESS and all disorders of the Stomach and Liver are corrected by using NORMAN'S ELECTRIC BELTS. Try one and be convinced. Guaranteed.

FEMALE TROUBLES.—Ladies are benefited more by NORMAN'S ELECTRIC BELTS than by all the science of medicine. They are comfortable and durable. Guaranteed.

WEAKNESS and Lassitude yield to the influence of NORMAN'S ELECTRIC BELTS when all other remedies fail. Try one and you will suffer no longer. Every belt guaranteed.

NERVOUS DEBILITY.—This dreaded and miserable disease is immediately relieved by the use of NORMAN'S ELECTRIC BELTS. Ask for them, take no other. Every belt guaranteed.

INDIGESTION AND SLEEPLESSNESS.—This seven headed monster is more easily overcome by the use of NORMAN'S ELECTRIC BELTS than any other remedy, and it possibly cannot do any injury. Guaranteed.

RHEUMATISM cannot remain long with any one who uses NORMAN'S ELECTRIC BELTS, and Neuralgia is driven away like smoke before the wind. Give one a trial. Every belt guaranteed.

NERVOUSNESS may be entirely cured in a short time by using one of NORMAN'S ELECTRIC BELTS, without any fear of injury. Try one and be convinced. Guaranteed.

***TESTIMONIALS—A few Sample Testimonials that speak for Themselves.***

MR. A. NORMAN, WALLATTA, D.T., December 17th, 1883.
DEAR SIR,—I am happy to inform you that the Appliances I got from your Chicago agent have had a most marvellous effect upon my patient who suffered from Sciatica. He could get very little relief from medicine. Shortly after he got your belts he was able to get out of bed, and is now on a visit to his Canadian friends. Send me some more circulars. Yours truly, DR. D. McLACHLAN.

MR. NORMAN, PERTH, ONT., June, 1883.
DEAR SIR,—I have been wearing your Electric Insoles for about six months, and have been greatly benefited by them. I recommend them to all who suffer from Rheumatism. Yours truly, MRS. J. GUTHRIE.

A. NORMAN, ESQ., OTTAWA, September 3rd, 1883,
DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way. Yours truly, R. E. HALLIBURTON.

A. NORMAN, ESQ., PETERBOROUGH, October 15th, 1884.
DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured me cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good. Yours truly, J. GREEN.

**☞CURATIVE BATHS: Electric, Vapor, Sulphur, and Hot and Cold Baths.**

Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them. Consultation free. Circular on application.

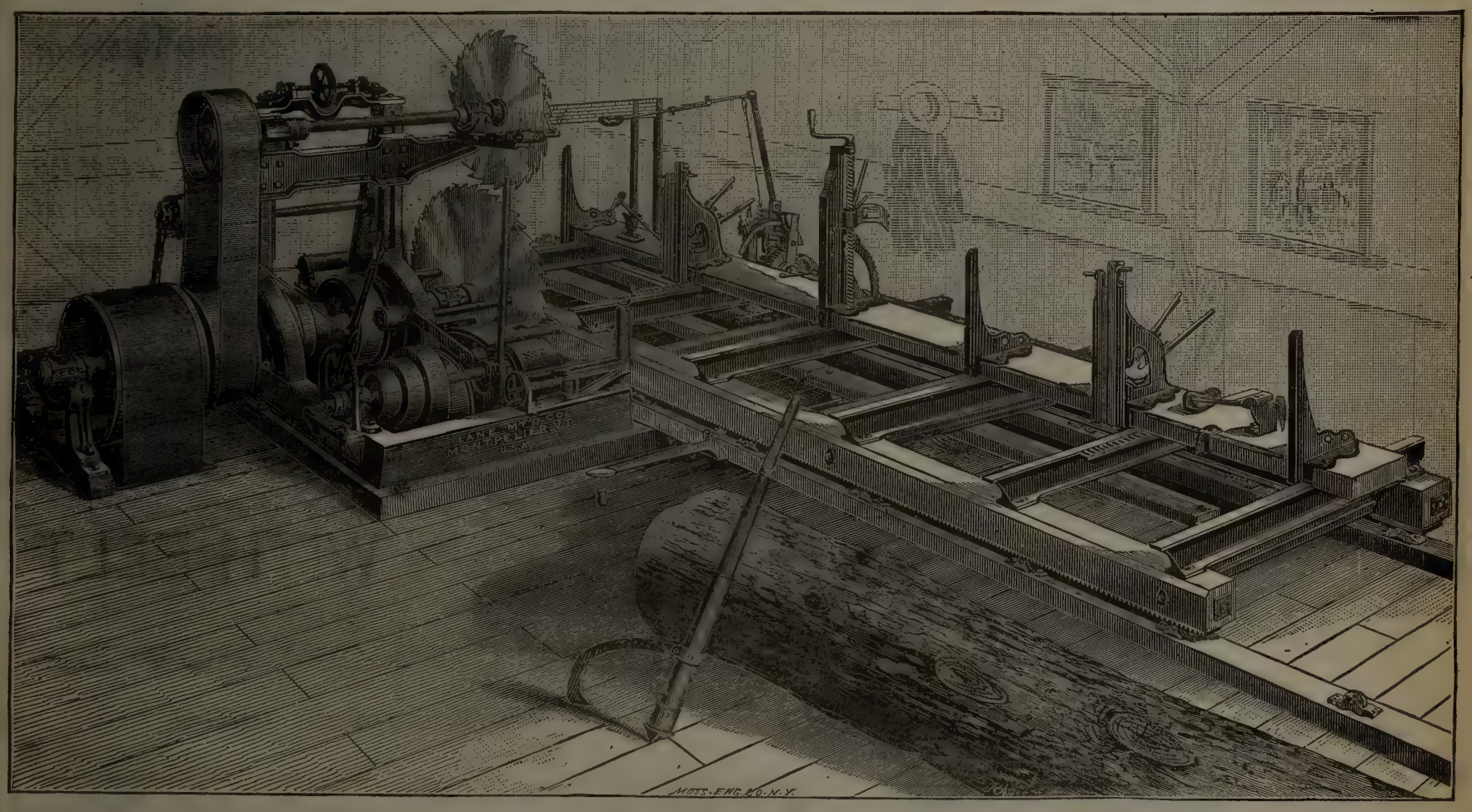
1134 **A. NORMAN, Proprietor, 4 Queen Street East, Toronto.**

# THE LANE MANUFACTURING COMPANY!

## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS




Circular Saw Mills,
Saw Mill Set Works,
Double and Single Traveling Bed Planers, Shingle Bolters,
Bed Timber Planers,

Clapboard Machines,
Clapboard Planers,
Stationery Bed or Roll Feed Planers,
Drag Saw Rigs,

Shingle Machines,
Lath Machines,
Double and Single Power Feed Edgers,
Mill Supplies, Etc., Etc.

FOR DESCRIPTIVE CIRCULARS AND PRICE LISTS, ADDRESS:

**LANE MANUFACTURING CO'Y, MONTPELIER, VT.**

# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

***IF YOU WANT***

— A —

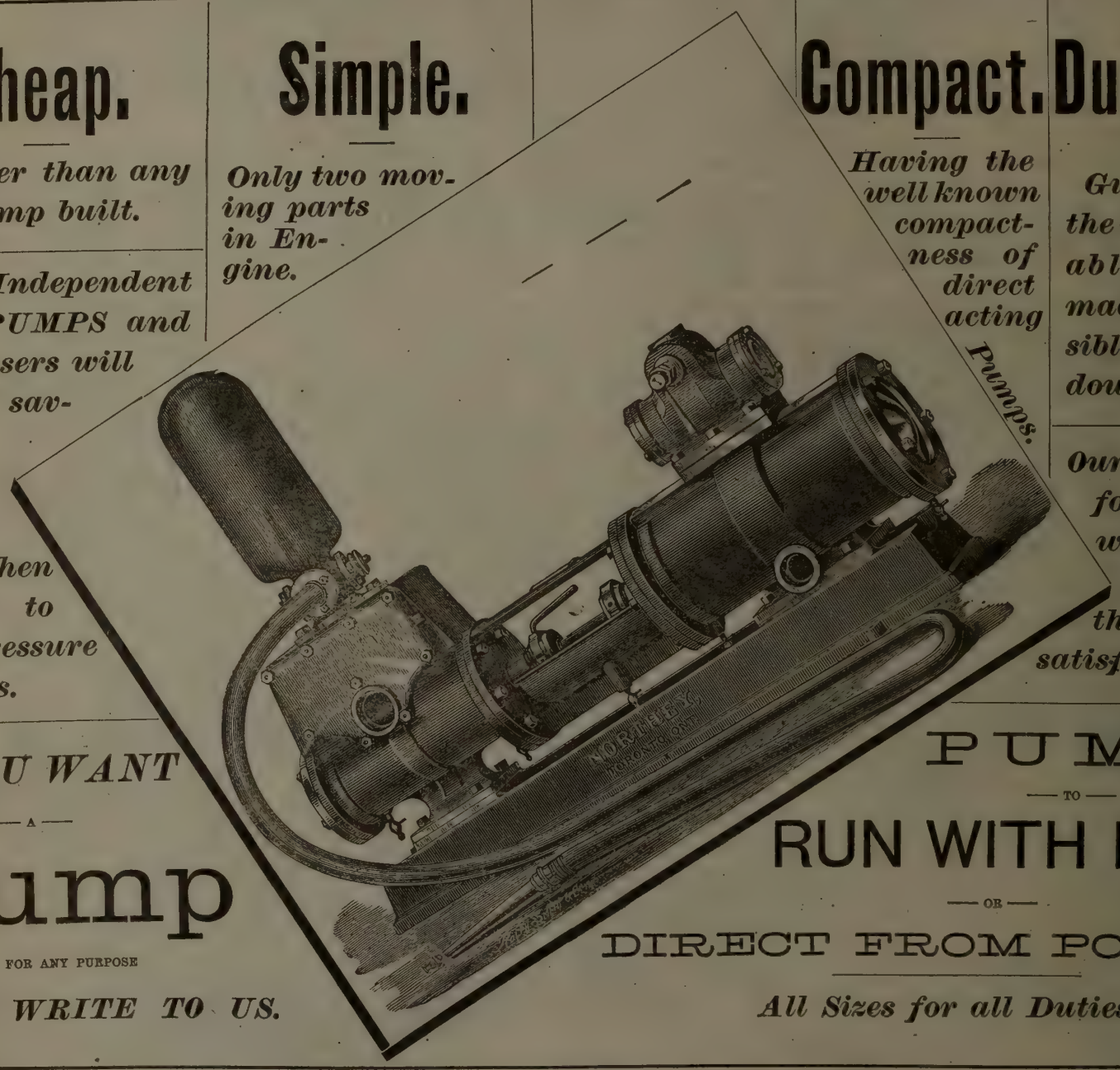
**Pump**

FOR ANY PURPOSE

☞ ***WRITE TO US.***

**Simple.**

***Only two moving parts in Engine.***




**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

PUMPS

— TO —

RUN WITH BELT

— OR —

DIRECT FROM POWER

***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

## SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

## NORTHEY & COMPANY,

Corner FRONT & PARLIAMENT STS., TORONTO, ONT.

# The Ontario Canoe Co., Limited

PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

# CANOES

***Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.***

***Gold Medal, London Fisheries Exhibition, 1883.***

J. Z. ROGERS,
President and Managing Director

Send 3 cent Stamp for Illustrated Catalogue.

**Canoes for Lumbermen,** designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

# McCOLL BROS. & Co.

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Manufacturers and Wholesale Dealers in Machine and Illuminating Oils.

## Our Celebrated "Lardine" Brand

***Is Unexcelled by any other Machine Oil on the Marke.***

## MILL MEN WILL SAVE MONEY!

***By using "LARDINE." Wears equal to Castor Oil and ONLY COSTS HALF THE PRICE.***

**CYLINDER** And other Oils, all of splendid quality always in Stock. ☞Prices. etc., on application to

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## SLATE & GRAVEL ROOFER

MANUFACTURER OF AND DEALER IN

Tarred Felt, Roofing Pitch, Sheathing and Building Papers, Carpet and Rosined Waterproof Paper, Ready Roofing, &c. ☞All orders promptly attended to at LOW PRICES.

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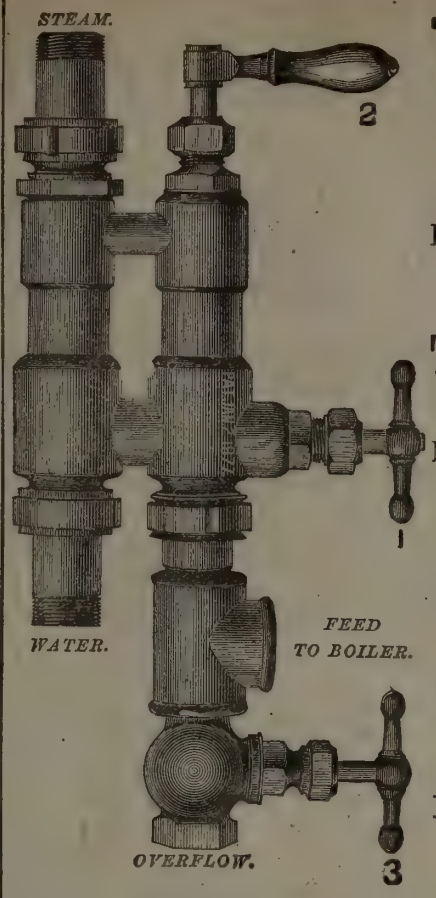



# The Hancock Inspirator

**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

## Over 70,000 Now in Use.

MANUFACTURED BY THE

## Hancock Inspirator Co'y

***5 Custom House Square,***

MONTREAL, P.Q. - - CANADA

**Manufacturers of Inspirators, Ejectors, and General Jet Apparatus.** 1yl1

LUMBER DRIVERS'

# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

***ST. JOHN, N.B.***

☞**Samples and Price Lists sent by mail on application.** l2

# HUGH GIBSON,

MANUFACTURER OF

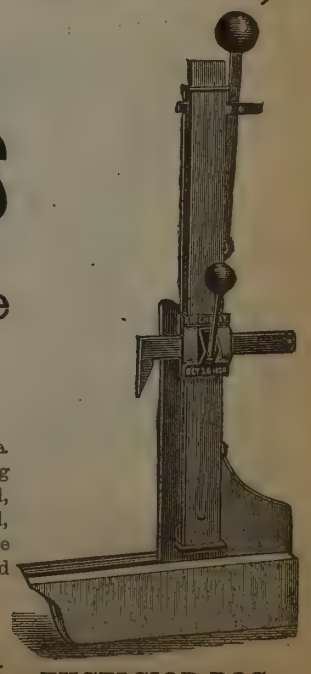
KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

## The Sawyer's Favorite

For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



Manufactured by HUGH GIBSON, CHATHAM. EXCELSIOR DOG.

# The William Hamilton Manufacturing Co'y

(LIMITED,)

MANUFACTURERS OF

# SAW MILL AND GENERAL MACHINERY

## PETERBOROUGH, ONTARIO.

## Our Saw Mill Engines

***Are made strong, neat and durable, knowing well the ever varying strain they are subjected to in driving a Saw Mill.***

## IRON AND STEEL BOILERS

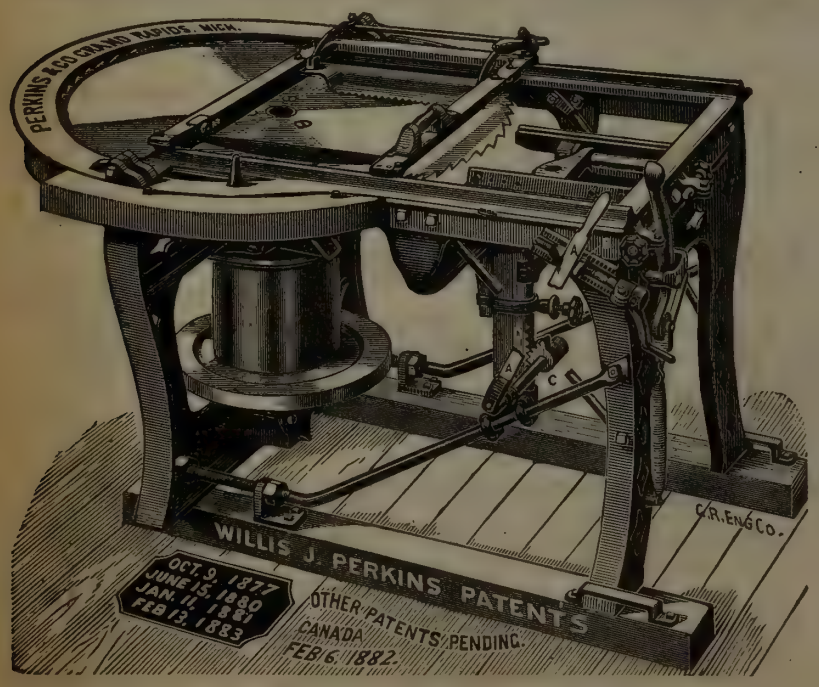
***of the Best Material and workmanship.***

We wish again to call the attention of our Canadian Lumbermen to our First Class IMPROVED SAW MILL MACHINERY, Heavy and Light Circular Mills; our Pat. Twin Circular, with Steam Rack or Rope Feed for Slabbing; Iron Oscillating Gang Mills of the most improved designs; besides our Patent Improved Long Cylinder Steam Feed. We would call attention to Cunningham's Oscillating Twin Engines for Feeding Long Carriages with Rack or Rope; our Patent Wrought Iron Jack Chain with Short Trucks; Heavy Wrought Iron Refuse and Sawdust Chains: Trimmers and Slab Cutting Tables; Lath Mills and Bolters; Lumber Markers; Trout's Patent Automatic Log Counter, to count the Logs as they come into the mill; Covel's Patent Saw Sharpener; Saw Swages and Improved Bench for Dressing and Hammering Saws; Perkins' Patent Shingle Mills; Bolters; Sappers; Jointers; Drag Saws; and Packers. We also forge a very superior ANCHOR for Lumbermen.

We are now introducing to those requiring Small Mills our IMPROVED SEMI-PORTABLE MILL, got up strong and durable, and are now adding to the many Machines for cutting Lumber. MILNE'S IMPROVED HEAVY BAND SAW for cutting Lumber out of large logs. The small carfe these Mills take out in using a No. 18 Gauge Blade, is a very important point in saving Lumber, besides the small amount of power required to drive it, making it a favourite in sawing lumber—capacity from 25 to 30 thousand per day.

We are prepared to submit plans and specifications, together with any information our many years of close application to the Saw Mill Business may have suggested to us; also when required to enter into contract for supplying the machinery and all material complete.

Communication from anyone intending to build Saw Mills solicited.



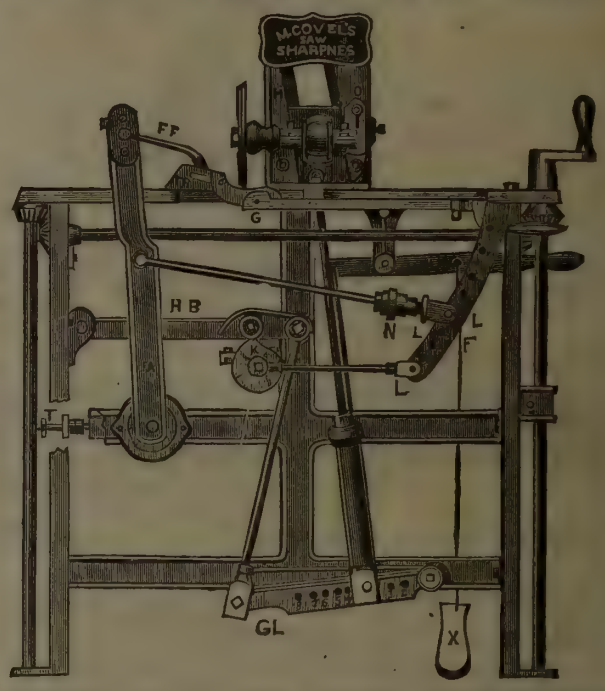

GRAND TRIUMPH!

## WILLIS J. PERKIN'S DROP TILT

The only Horizontal Saw Machine on which a thick slab can be cut from the bolt. SECOND CUT ALWAYS A SHINGLE. Knots, rots, hearts, bolt squared rift-ways, and all irregularities cut off at one clip. This improvement will pay price of the whole machine every season by increase of quality and quantity cut.

## OUR SPRING STOCK OF

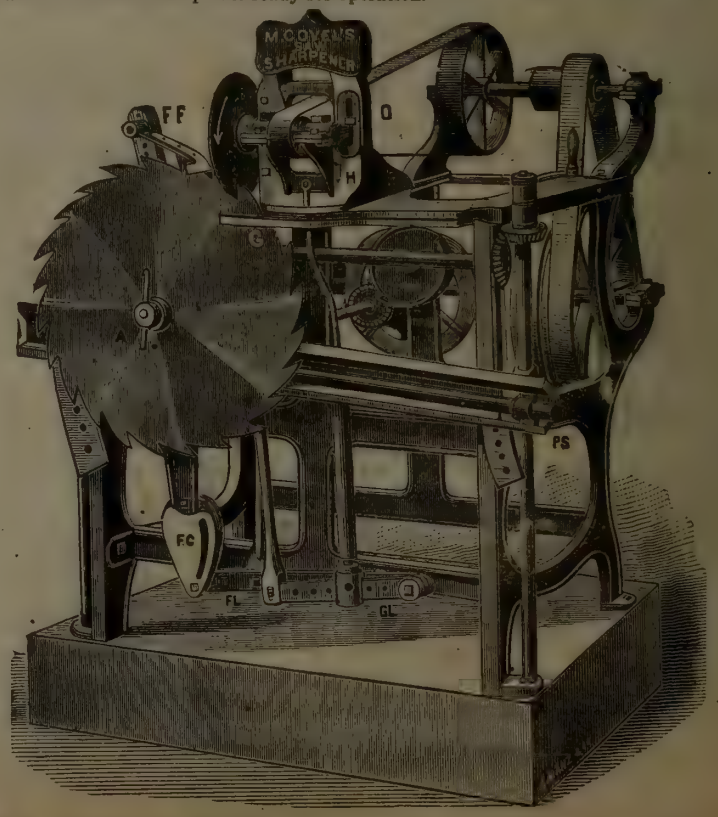
## The M. Covel Patent SAW SHARPENER




## IS NOW READY FOR SHIPMENT.

***They are now so well-known to the Lumberman, that their utility requires no comment.***

The above Cut No. 1 shows some very important changes that have lately been made, which makes the machine far less complicated for new beginners to operate. Cut No. 2 shows this machine with a circular saw upon it ready for operation.




## The Wm. Hamilton Manufacturing Co., Peterborough, Ont., Sole Manufacturers and Agents for the Dominion.

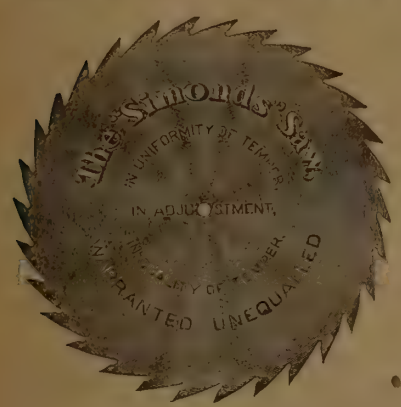
☞SEND FOR PRICE LIST AND CIRCULAR.

# "POCONO" AND "PARADISE."

So many of our Mill Men and practical Sawyers have formed their opinions as to the quality of TANITE EMERY WHEELS for SAW GUMMING by a trial of one class only—our old and well-known CLASS 2 wheels—that we deem it necessary to call attention to the above comparatively new classes. All Mill Men should understand that there is no absolute and accepted standard as to Saw Gumming Wheels. The preference for one or another make is as much a MATTER OF TASTE as is preference for cheese, or wine, or music. Most of our competitors make but one class of Saw Gumming Wheels. We make FOUR, and there is about as great a difference among these four classes of Tanite Wheels as there is among the wheels of different manufacturers. It is quite probable that some who failed to be satisfied with our Class 2 may find some one of the other classes exactly what they want. It is equally probable that some who have been regular and well satisfied users of our Class 2 or 3 Wheels may be still better pleased with our "POCONO" or "PARADISE." We suggest your sending an order for four wheels, one each of Classes 2, 3, "Pocono" and "Paradise," in order that you may settle the question which does suit you best. We are furnishing the "Pocono" largely, and the demand is largely increasing. For the "Paradise" there is but a light demand, but it comes from experienced men. We also make a Special Class to suit the requirements of the AUTOMATIC SAW GUMMING MACHINES so largely used in the North-West.

THE TANITE CO., STROUDSBURG, PA.
MONROE CO.,

# ST. CATHARINES SAW WORKS!




R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

ST. CATHARINES, ONTARIO.

## SAWS.

ALL SAWS FULLY WARRANTED

Sole Manufacturers for the Dominion of Canada of the

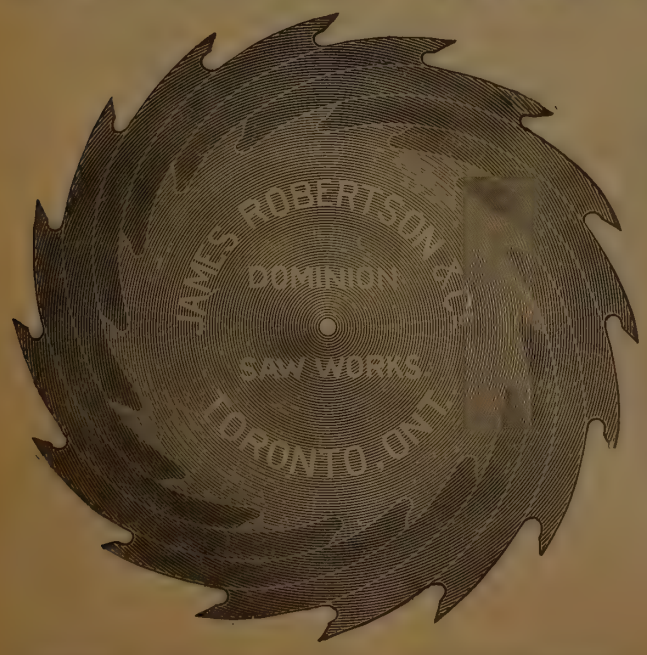
## "SIMONDS" SAWS.

☞ *All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*

# Dominion Saw Works!

## JAMES ROBERTSON & CO.

## 253 to 267 KING ST. WEST, TORONTO, ONT.




*EVERY SAW FULLY WARRANTED.*
*Prices on Application.*

*MANUFACTURERS OF SAWS*

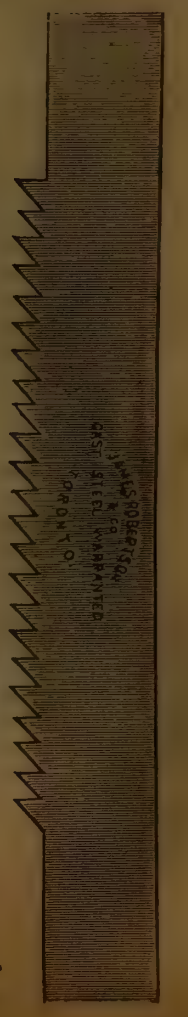
Circular, Shingle, Gang, Cross Cut,
Concave, Mulay, Drag, Grooving.

THURBERS ROYAL

## Anti-Friction Babbit Metal

IMPORTERS AND DEALERS IN

Band Saws, Emery Wheels, Files,
Saw Swages, Rubber Belting, Saw Sets,
Saw Gummers, Leather Belting, Iron Pipe, &c.

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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

**VOL. 5. PETERBOROUGH, ONT., MAY 15, 1885. NO. 10.**


## INSPECTION OF LUMBER.

*To the Editor of the Canada Lumberman.*

SIR,—Considering the importance of the subject it is somewhat surprising that no communications have appeared in your journal regarding the inspection of lumber.

That this is not at all satisfactory, either to buyer or seller, is well known in the trade. Nor has any attempt, so far as the writer is aware, been made to reduce the inspection to something approaching uniformity, both as to the names of the qualities and the grade of lumber constituting these qualities.

As to nomenclature, we certainly do possess names, but it is well known that to one inpector a certain name will imply a grade of lumber differing materially from that which another understands by the same term.

Which one of your readers which has occasion to attend court in a suit but has noticed the widely different definitions given as to what constitutes a mill cull or a pick? The writer has a distinct recollection of the difficulty he had in endeavoring to reconcile the almost diametrically opposite descriptions of what a second in oak consisted, or rather what defects made a piece pass for second.

Is the inspection of lumber based upon the question of supply and demand? Do our inspectors reject lumber when the demand is limited and supply plentiful, which, in a different state of the market, would probably be accepted? Is our inspection regulated by the market to which we are about to ship? If, for home consumption, a light inspection; if, for a foreign market, a close one.

Is our conception of what constitutes any one quality determined by the use to which it is to be put?

Is the culling of lumber regulated by an understanding between the buyer and seller?

Is not the inspection of lumber left to be determined by unforseen circumstances, such as the rise and fall of the markets, the amount of stock on hand and the probable cut, the failure of the dealer to dispose of a stock bargained for early in the season, or the acceptance of a higher price by seller for his lumber already sold?

In fact, is not the inspection of lumber governed by anything, save by following a standard agreed upon by both manufacturers and dealers?

Who regulates our inspection such as it is? Is it the manufacturer? No. In contracting with the dealer for the disposal of his stock, the manufacturer agrees to leave the culling to the buyer or his inspector.

Does the inspector accept or reject as he pleases, thereby determing the respective qualities? No. He has his instructions from his employer. Then it must be the dealer who regulates the inspection. No. It is the consumer.

Competition, by no means healthy, is at the root of the evil. There are far too many engaged in the trade, many of them not having anything to do, run round and sell on commission. Lumber of a certain quality is sold at a low figure, the next man coming along offers the same quality at a still lower rate, and the dealer instructs his inspector to meet the price by a correspondingly lower grade. The name remains the same, but the quality is either good or bad according to the price.

It is time that both the manufacturer and dealer with capital invested, who have to stand the losses incurred by too zealous commission men, combined and regulated the inspection of lumber as well as other matters belonging to the trade.

Or, if that cannot be done, then let our inspectors (and none are so well qualified as they), form an association, and, so far as the inspection of all kinds of lumber is concerned, both hard and soft woods, determine what shall constitute the numerous qualities. Let his standard, after examination, be agreed upon by both manufacturer and dealer, and be a set of rule to which any dispute can be referred for settlement, so far as such can be done.

LUMBER.

Toronto, May 4th, 1885.

## PROVINCIAL FORESTRY ASSOCIATION.

The following letter appeared in the Montreal *Gazette*:

SIR,—I have read with interest the account of the proceedings of the Forestry Association at Quebec, also your editorial on the proposition made there by Mr. S. C. Stevenson, and much as I agree with the objects said to be aimed at by the association—viz., the preservation of our forests and the planting of new ones—on taking a view of the matter I am inclined to think the association is not going to work in the most practical way to secure the desired ends. I notice that much stress is laid on the observance of arbor day and the planting of a few trees by way of ornament by cities and schools. This, of course, cannot go on for ever, nor is it calculated to renew our denuded forests, nor do I conceive it can teach children at school what is required in the way of planting forests, as the trees planted on Arbor Day are always large ones, and even were they procurable, would be to expensive for large plantations, nor would they be desirable. What is required is to get nurserymen to sow large quantities of seed of the best kinds suitable for timber and to transplant them in their nurseries at least once before they are sold for planting; they would then be about 12 or 18 inches high and easily handled. If I remember right the association, when they met in Montreal, proposed to offer some reward to the persons who had planted the largest number of trees on Arbor Day. What we want is wholesale planting such as is done in the old country, and if any reward is to be held out, let it be to the party who has successfully planted the largest number of acres in any one season. What better place could be had for this than some districts of the eastern townships where the country has been completely bared of trees? If a good wide belt were planted between some of the farms it would improve the country and afford shelter to the farm building and stock of which they are at present destitute. I merely mention this district, for if my suggestion were carried out it would let farmers see what could be done and and what a benefit it would be to farmers. But there is no scarcity of land which wants planting. The trouble seems to be to get people to make it their business to do so, and plantations after all, if properly attended to, do not take so very long before they begin to yield a return for the cost.

The idea of giving chilnren a taste for arboriculture is very good in its way, but if we want to see our forests renewed on a large scale it should be commenced at once, as every year is of importance considering the great demand which is now making on our standing forests and the difficulty and time required to replace them. We should all take to ourselves the advice which the Laird of Dumbiedikes gave to his son:

"Aye, be stickin' in a tree; it's growin' when ye're sleepin'."

Yours, &c.,

THOMAS M'NAB.

Montreal, 15th April, 1885.

## A NEW INDUSTRY.

There is now in process of construction in Bullman City a plant for the manufacture of what is called terra cotta lumber, although why the word lumber is used in this connection is not plain, neither the fact that it is capable of being cut with a saw nor the fact that sawdust is an agent in its construction entitling it to such a classification.

By one of those happy ideas which seem more the result of accident than design it occurred to the inventor that common brick clay might be rendered light, porous, elastic (to a certain extent) and capable of being worked with cutting tools by mixing wet clay with an equal bulk of sawdust, molding it into certain forms after the manner practiced in the manufacture of brick and afterwards subjecting the mixture to a sufficiently high temperature to entirely consume the sawdust. The final step in the process, that of baking the clay for the purpose of hardening it and at the same time consuming the sawdust, causes a curious change in the conditions of the original substance. The gaseous products of combustion evolved from the burning sawdust produces an effect on the clay very similar to that produced in dough by the effect of yeast; the gases expand the clay around each particle of sawdust and finally force their way out of it, leaving it in porous condition resembling more than anything else well raised and baked bread, excepting that the pores or cells in the clay are more regular in size, the size of these pores depending upon the size of the particles of sawdust. By varying the proportions of sawdust in the clay a substance of any degree of porosity or solidity may be obtained from a substance almost as dense as common brick to one as light as wood.

As originally made the mixture of clay and sawdust was molded into long blocks or logs and afterwards sawed and cut into the shapes desired, which was probably the reason for its being called lumber, but this crude method soon gave place to the better one of molding the mixture at once into the desired form thus avoiding an unnecessary amount of work.

The porous brick slab or tile, which results from this process, has desirable qualities as a material for building purposes. As ordinarily made its weight, compared with a common brick, is 8 to 20. It is a non-conductor of heat. Nails can be driven through it without cracking it, and it resists all changes of temperature without disintegration. In addition to these advantages its porous surface and cellular structure enables plaster cement to adhere to its surface with great tenacity without cracking; a manifest advantage for either outside or inside work,

By the use of this material the interior of dwellings may be rendered rbsolutely fire proof at very little additional cost over the ordinary method of construction. Slabs or planks of the material can be nailed to the sides and ceiling of a room, furnishing an even surface for the after application of plaster, and the floor may if desired be covered with a coat of asphalt on which, while hot, ornamental wood flooring may be placed, making one of the best possible floors.

The low cost of manufacture enables this substance to compete successfully with common brick as a material for house building, and it seems capable of adapting itself to a great variety of purposes not here enumerated.

The clay which is used in the manufacture of this porous terra cotta has heretofore been a refuse material not available either for the manufacture of fire or common bricks and is exceedingly abundant in many localities, and the other material or agent (sawdust) used in the manufacture is also a waste substance; there is no reason, therefore, why it cannot be produced so cheaply as to bring it into general use and thus form the basis for a large industry. We are glad to note that it furnishes a means of utilizing a waste product of the lumber business which has been a nuisance to the mill owner.—*Northwestern Lumberman.*

## IS TRADE AS BAD IT IS REPUTED?

The *Timber Trades Journal* of April 25th says:—We have been so much accustomed to speak of bad trade during the last year or two, and to find everybody acquiescing in the sentiment and ready to pass it on to the next inquirer, that disbelief in it has come to be almost accounted a heresy, which few are bold enough to lend their names to. In fact, without troubling ourselves with statistics, a sort of general impression has established itself in the public mind that the great trading supremacy of the United Kingdom has gone by. And that the spirit of enterprise that shone so brightly in the days of Drake and Frobisher, and was by them handed down to successive ages of great navigators to the times of Anson and Cook, in the reign of George III., has dwindled and almost evaporated in modern times. Or is so bound up with steam and other contrivances of science for making the tour of the world in crowds, that men themselves have lost their individuality as if they were turned out by machinery, all to one pattern, like ninepins, and that trade itself was becoming engineered like eveything else, till it was almost reduced to a mathematical theorem.

But if anybody believes that England is behind the rest of the world, either in its industry, assiduity, or power, let him peruse the Blue Book issued on Tuesday last, containing the annual statement of the navigation and shipping of these realms during the not very flourishing year of 1884, and the contents must appear to him an extraordinary revelation. From this we learn that 347,441 vessels, registering 74,823,763 tons, entered the ports of the United Kingdom last year—not quite so many as we employed the year before, when the numbers were 354,164 vessels, with a tonnage of 75,340,597, the difference be less than 1 per cent. So many did not go out again as the number that came in. The clearances outward in 1884 were but 309,303, and tonnage went no higher than 69,176,612. But even here the ratio was comparatively well kept up, as the numbers the year before were no more than 314,984 outward, with tonnage of 69,452,860.

Here also the difference was very trifling. If our trade over sea was declining, it was almost imperceptible in the great volume of business still doing; and if we analyze these figures we find in them a good deal to reassure us, and to satisfy us that if we are, as some persist in predicating, on the road to ruin—and going by steam too—it will take us a long time at this pace to reach that unfortunate goal. Of the 347,441 vessels that entered our ports 186,783 were sailing vessels and 160,658 steamers. But what must be considered of more importance is the great preponderance of those under our own flag. 321,175 were Britisih vessels, and only 26,266 were foreign. Things are great and small only by comparison. To be told that 26,266 foreign ships brought cargoes into the United Kingdom last year, as an expression taken by itself, might have the effect of creating a belief that foreigners were monopolizing our ocean-carrying trade; but when, on the other hand, we are told that for every foreigner a dozen British ships were employed in our carrying trade, the idea vanishes, and the competition is held to be of almost no account. It is to steam that we are indebted for this access of British tonnage. The shipping interest does not admit of being under any obligation to the Board of Trade for it, and doubtless, had Mr. Chamberlain's Shipping Bill been passed last year, these figures would have been materially modified. This peril, however, was escaped, and our shipping still dominates the ocean traffic of the world, as it is without question the best in the world, all arguments to the contrary notwithstanding.

Of the 309,303 ships clearing outwards from British ports, 157,986 were sailing vessels and 151,317 steamships. Steam is already numerically, and as to employment, treading closely on the heels of sailing ships. 283,241 of these ships were British and 26,062 foreigners. The difference in favor of British against foreign ships last year was only 11 to 1. An unusually large number of British vessels, chiefly steamers, were "on strike" against the low freights ruling, but they are not unlikely to find employment this year, as far as can be judged from present appearances, and let us hope they will be able to pay their way handsomely.

The number of vessels trading between foreign countries and British possessions—meaning entered British ports—was 60,605, with a tonnage of 31,688,521, cleared outwards 61,936, of tonnage 32,584,001.

In the coasting trade 286,836, with a tonnage of 43,135,242, entered inwards, and 247,367 cleared outwards, with tonnage 36,592,611, an amount of traffic around our coasts which appear almost incredible when we hear immediately about us, and have done for the last twelve months, little else than lamentations over the dulness of trade. The total number of British registered vessels engaged in the home and foreign trade was stated as 18,754, with a tonnage of 7,083,944, employing 199,654 men and boys. The number of British vessels registered was 24,149, tonnage 7,363,707. During last year 1,001 new vessels were built in the United Kingdom, with a total tonnage of 497,442, not including those launched in fulfilment of foreign orders and to be sailed under foreign flags.

From these statistics we gather that, large as our trade appears to be it is scarcely adequate to our capabilities. The one unfavorable deduction from its otherwise imposing array is to be found in the last figures, from which we learn that out of our 24,149 merchant ships only 18,744 found employment last year, and therefore that 5,398 vessels remained without employment, with a tonnage of about 300,000, which signifies so much trade out of gear and the forced idleness of 10,000 or 12,000 men and ships' officers.

Thus, while we are still doing an immense trade, our whole people are not well employed, and though not 1 per cent. fell off last year in the number of our vessels in active occupation a great many among us are unable to participate in the general welfare because their special calling is not immediately in requisition. In 1874 the total mercantile tonnage of the United Kingdom, steam and sailing, amounted to 20,872 vessels of a total tonnage of 5,864,588, exclusive of those hailing from British possessions. The number has continued to decrease since then, but the call for a larger class of ship, and especially steamers, has prevailed ever since, and while the home list now contains only about 19,000 ships, their tonnage is ten times greater than that of the greater number in 1874.

During the nine years, 1875 to 1883 inclusive a Parliamentary paper, issued last week, informs us 10,318 British ships, including those of our colonies, were lost, their united tonnage being 2,816,072. The average, therefore, would be about 1,149 ships per annum, and in tons 312,997. The tonnage of the vessels lost during the nine years would only average 273.

The gap to be filled up in the natural course will, therefore, every year, taking one with another, be about 313,000 tons of shipping to be built, without taking into account the natural expansion of trade, which, indeed, just now is a phrase of which the markets take small account. Incidentally we may mention that with all these losses, the death rate at sea did not exceed one in 48, while on shore the death rate is reckoned to average one in 50 per annum for males.

That shipping has been a little overdone—that is more vessels built than were absolutely wanted—is now pretty generally allowed, and much of our trade depression is probably attributable to that cause; but our losses at sea are so great that the building yards still are able to employ a large staff of men, and the latest information from the great building districts of Glasgow and the Tyne is that the trade is again improving. The Government having given out its orders for the Admiralty, a start has been imparted to the trade, and the private business coming in at the top of it seems to have caused many of the superfluous shipwrights to be put on again at fair wages, and things are no longer in the bad state they were a while ago.

The timber trade is also looking up; and we learn from the other side the Atlantic that there is the uprising of a good demand visible in all directions, both in Canada and over the border. Everybody seems sanguine of more trade to be done this summer, and the lumberers are said to be pursuing their occupation without reference to the state of the outside market. Their business is to get forward as much timber as they can from the forests of the interior, and they mean to do it, not doubting but they will be recompensed for their labor by a return of better trade.

The Government shipping report which we have briefly analyzed, is hardly in accordance with the large decline in the trade of the country which was indicated by the Board of Trade returns to which we referred in our last number. We have been as busy at sea within 1 per cent. as we were last year, yet in our export trade, which goes hand in hand with shipping, the deficiency is about 5 per cent., and in our import trade much more.

From this it seems to be proved that the difference arises chiefly from the smaller valuation of our exports. There is as much trade doing, or nearly so, but at such a depreciation that the value cannot be put down at such good figures as before. Whether the 11,000,000 extra which the Government have just notified Parliament that they want will go to promote trade or not remains to be seen. But we may pretty well rely that the rumoured 3d. additional to the income tax will by and by come upon us. Nor will the trading community begrudge it if a commensurate revival of business takes place before it is absolutely demanded, and they see the money usefully applied in securing the saftey and the vast trade of the empire.

## CLEFT WOOD.

In many of the old mansions the beauty of the split wood wainscoting has been much admired. The art of rending wood is not lost, but it is curious that there is no machine that can divide a piece of wood into any number of parts by following the grain from one end of the stock to the other in all the curves and crooks that are found in rending. For straight grained stock the saw answers every purpose with a great saving in lumber, time and labor, but there are places and requirements where the stock is to be rived out, that every part of the work may be of equal strength and of like tenacity throughout. This rending process, or the trade of the rail splitter, is one that requires the extremest skill on the part of the render. The lath splitter will sieze a log of wood, however straight or crooked, and divide it in halves through its central line, guiding the crack and keeping the rend in the centre of the stock by the manner of applying the splitting force of the wedge. The instant the split leaves the central line, or one half of the log, or the other is weakened, the deflection is the greatest in the weakest place, and the result would be that if the render were to continue the splitting would cleave to one side, and the halves be unequally divided; but the render is on the lookout for this, and can tell in an instant when the split leaves its central division, however winding the log may be, and assists the weakening side by slightly bending the other till the divided work has been thickened and the rend continues on the centre. The halves are divided in like manner until the stock is divided into eights by radial divisions, when the circular wedge shape section is ready to be divided cross ways following the annular grains or fibre-ring that forms about the heart of the wood, and again the radial division applied, till the log has been rived into the fineness required. The curve or bending flexure of the divisions by which the line of cleavage is directed is a principal that is brought about by the skill in handling the wedge, or whatever tool is used in splitting. If the knife is forced around to bring the spreading force with a larger leverage on one side than on the other, the strength of the shorter half will be better prepared to resist the action of bending than the other, and the work will have a tendency to cleave to the thickened side if the rend has not departed too far from its central course; if so, the work will need assistance in the way of springing the stock into the position that will allow the split to rectify itself. It is skill and practice in the correct principles of rending wood that brings the division of stock with the grain into equal parts to a success, and not chance cracks or good luck in splitting, or the placing the dividing wedge or frow into the exact centre of cleavage. Why this splitting should be affected, or the course of the rend be changed in the slightest degree from the effect of bending, the stock behind the work where the action is to be expected is a principle that must make use of the extension and distortion of the material it meets with in being deflected. If a beam is loaded at each end while it is supported in the middle, the upper layers will be extended while the lower fibres will be compressed; the tendency between every dividing line will be for one surface to slip upon the other, as may be observed in a built up beam of thin boards before gluing, a tendency to "crawl" will be noticed from the support in the centre to places where the load is applied. This tendency to creep is sufficient to break the cohesion between the grains of wood. A peice of stock split for a few inches deep in two or more places sufficient to divide the stock in three or more equal parts, will, on being deflected, bring the shearing strain on every fibre in the stock; and since they have been weakened in the line of cleavage that has been made, and the rend must continue at these places long before the remaining stock has been injured in the division of the grains, so by breaking the stock over a support, so as to cause the material to assume a sharp bend first to one side and then to the other, the line of division is conducted and forced through the stock and left in equal parts with the grain.—*Timber.*

## THE BRITISH TRADE.

RECENT advices from Great Britain indicate a somewhat unsettled state of the timber market, with an upward tendency or at least a stiffening of prices. The uncertainty, however, has the effect of making both buyers and sellers cautious.

The *Timber Trades Journal* of April 18th says:—"Buyers here do not care to purchase now at any serius advance made on the supposition that war will result, and afterwards find themselves in a position of great disadvantage with others who had bought earlier in the year." Again, after mentioning a circular from a London firm notifying a withdrawal of all quotations, it says:—"We know for some time past one or two of the dealers have put up their prices, but this the first printed announcement of the kind we have come across."

The reports of our contemporary from the ports, which are the chief points of interest to the Canadian trade, are to the same effect. Its Liverpool correspondent, after mentioning the busier aspect of the wharves, and the greater freedom in executing orders, says of Norway flooring:—"Prices of the latter goods have advanced during the week, and with the imminence of war a further increase is more than probable; in fact some shippers are for the moment indifferent sellers, unless at a substantial increase, or have withdrawn from the market for the present. In other good there is no change in quotations."

The same account comes from the Clyde. The Glasgow correspondent remarks:—"The timber market here has slightly improved during the past week, as indicated at the auction sales that have taken place, and this was to be expected in the present position of the trade in the face of small stocks on hand the probability of a war which would, at any rate, affect prices of deals."

Since these reports the prospects of war seem to be less imminent, though not altogether removed. Therefore there is still the same element of uncertainty. Some assume that a peaceful solution would necessarily be followed by some decline in prices, but this is by no means certain. There is not only to be taken into consideration the fact of "small stocks on hand,' but also the still more important fact that the visible supplies of timber are exceptionally low at present. Neither would the higher war prices in Great Britain necessarily mean all gain to the Canadian manufacturer, for there would be increased freights and war risks to be taken into account.

The situation is one of uncertainty, but appearances are not unfavorable to those who hold stock.

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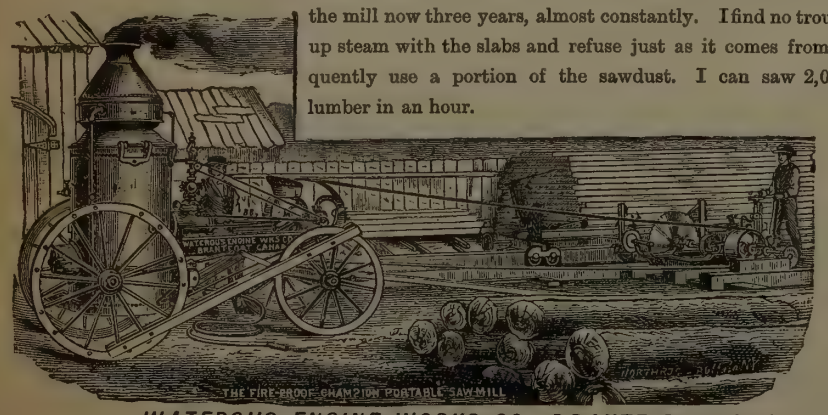
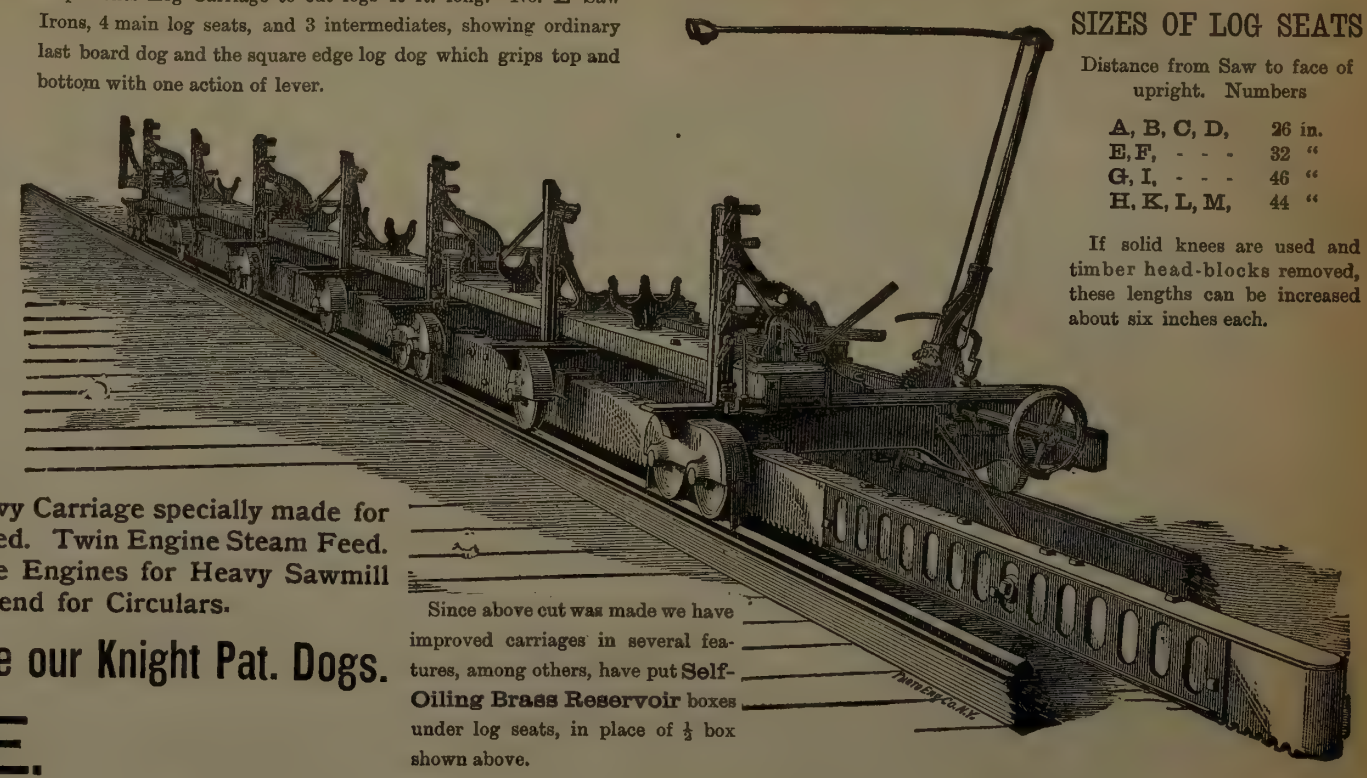
GEORGE BOOK writes as follows:—"St. Ann's, Ont., July 27th, 1882. I have just finished sawing with your 20-horse Champion Engine, and No. 3 mill before harvest. At the last place I set down, we cut 345,000 feet, mostly inch, 70,000 being oak, in nine weeks. We were just ten weeks from time we moved mill till we returned home with it. We sawed above without an accident or delay of any kind. I have run the mill now three years, almost constantly. I find no trouble in keeping up steam with the slabs and refuse just as it comes from saw and frequently use a portion of the sawdust. I can saw 2,000 feet 1-inch lumber in an hour.




WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.

Represents Log Carriage to cut logs 40 ft. long. No. E Saw Irons, 4 main log seats, and 3 intermediates, showing ordinary last board dog and the square edge log dog which grips top and bottom with one action of lever.



### SIZES OF LOG SEATS

Distance from Saw to face of upright. Numbers

| | |
|---|---|
| A, B, C, D, | 26 in. |
| E, F, - - - | 32 " |
| G, I, - - - | 46 " |
| H, K, L, M, | 44 " |

If solid knees are used and timber head-blocks removed, these lengths can be increased about six inches each.

☞Heavy Carriage specially made for Steam Feed. Twin Engine Steam Feed. New Style Engines for Heavy Sawmill Work. Send for Circulars.

Since above cut was made we have improved carriages in several features, among others, have put **Self-Oiling Brass Reservoir** boxes under log seats, in place of ½ box shown above.

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Using 4 to 12 in. Face Frictions: Steel Mandrels; Reservoir Oil Boxes:—Double Leather Belts, from 2½ to 6 in. wide, takes 72 in. Saw feed and under.

**CARRIAGES** to cut any length desired, for slabbing or stock purposes, shipyards, &c., Ratchet, or Gauley's Friction Set Works, Eagle Claw Dogs, Tiger Dogs, Receeding Attachment, and Special features.

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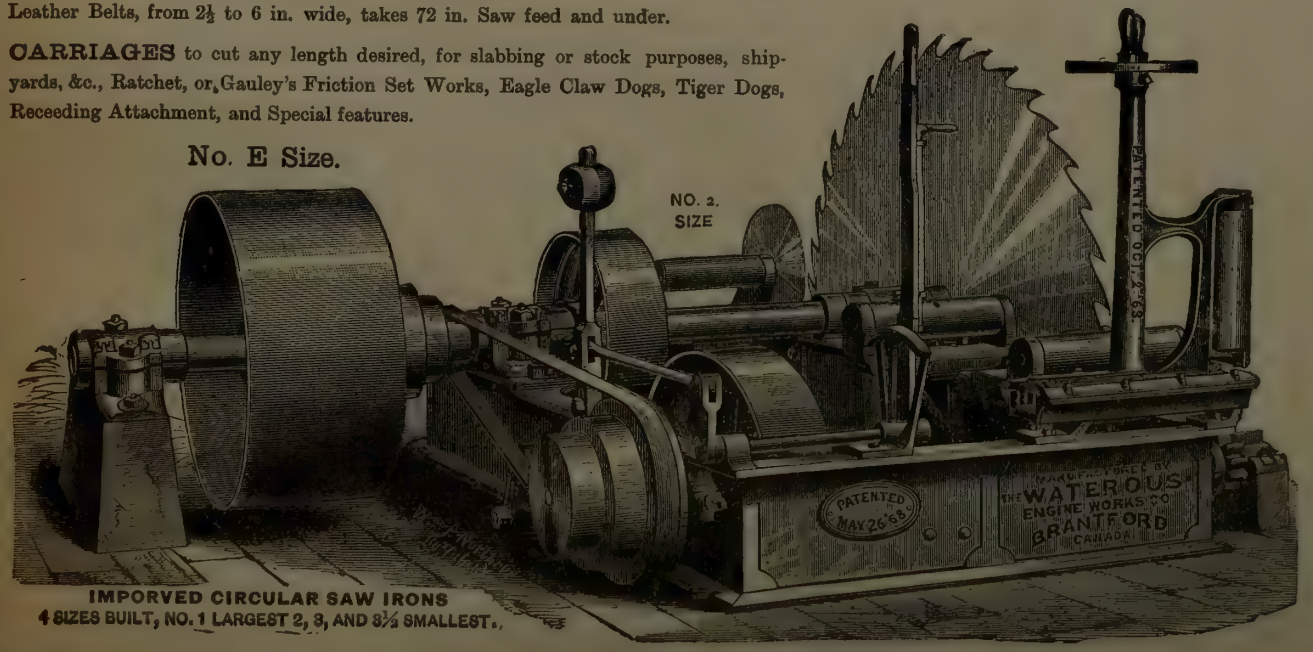


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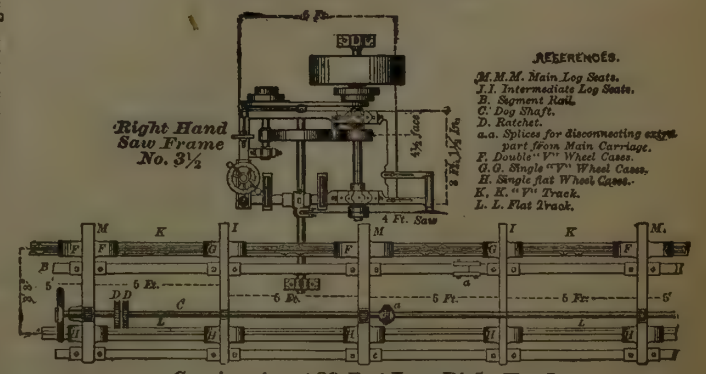
By direct practical experience of over forty years in the lumber woods of Canada we have gained an intimate practical knowledge of what is necessary to produce a cheap, practical, efficient saw-mill, and have so built and improved our machinery that no mills can compare with them to-day in these respects.

This view of our smallest Saw-Irons illustrates fairly all the eleven **No. A.** larger sizes that we make.




*Carriage to cut 30 Foot Logs, Right Hand.*

Shows Carriage with Slides on Log Seats, Upper Rail and Knees or Uprights removed.

☞Send for Prices and Illustrated Catalogue.

Send for Sawyers and Lumbermens Handbook. A new treatise on Saws and Saw-mill furnishings, just published. Free to all using Saws.

# The Waterous Engine Works Company, Brantford, Canada.

## THE WATERSHED OF EASTERN ONTARIO.

The following is from Mr. R. W. Phipps' annual forestry report, published by the Ontario Government:—

There is no part of the science of forestry more beneficial than that which teaches to keep covered with forests the principal heights of land. These, especially those which are termed watersheds, when covered with extensive woods, from reservoirs which supply the sources of numerous rivers, give moisture to the numerous small lakes and watercourses which intersperse the slopes below them, and preserve throughout the whole country a fertility, invariably much impaired when the forests above are destroyed.

The chief watershed in Ontario extends in the shape of a crescent, the centre trending to the north, the ends touching respectively, near Kingston and Lake Nipissing. From and through this, many watercourses run to the east towards the Ottawa, and many more in a westward direction towards Lake Ontario. On this elevated section of country, therefore, the forest should, above all other places in Ontario, be preserved.

It happens luckily for this purpose that much of this territory is of an inferior character, not adapted for agricultural purposes, while it contains much valuable pine and other timber which it would be extremely desirable to preserve, both that this height of land may remain wooded, and to answer as a reserve of timber.

In order to examine this matter thoroughly by personal observation, I have, this summer, travelled from Ottawa to Lake Nipissing, and from thence back to Kingston, thus passing around and through much of the district in question, observing what progress had been made therein, and obtaining from lumbermen engaged in its forests, opinions as to the best method of preserving them.

A few words may well be said here concerning Ottawa. To this point logs are floated from most of eastern Ontario, and from all that portion of Quebec which the Ottawa drains. Here, every day, all summer through, comes the stream of timber floating down the turbid current, after its journey of hundreds of miles down the Ottawa—the "Utawa's tide" immortalized by Moore— passing by many a dense forest and many a fire-wasted shore, or, before that, down the dark and winding Mattawan, the Petewawa, home of many a rapid, the far stretching Coulonge, or even, now that steam has overcome the obstacle of the intervening neck of land, from distant Nipissing and many streams that terminate therein. There are numerous mills in the back country, and what they cut passes on by rail. But the great mass comes in log and is sawn up at Ottawa—that city of two great industries—the home of legislation and of saw mills.

Where Ottawa stand, the river pours its dark waters over a ridge of rock which, at that point crosses the country. The ridge does not span the river in a straight line. Its centre is bitten out by the tooth of time, and into this central gap the river, flowing till then broad and level above, pours all its waters suddenly from three sides at once. The result is marvellously beautiful—the whole immense acre broad cauldron boils in milk white mountains of half water, half vapor. This is the Chaudiere—the boiling pot. This vast mass of falling water is turned to the uses of science—clusters of great saw mills occupy all along its edge, using everywhere the overplus of the stream, and are even built out over one side of the cauldron itself. Here they are ever at work, their great chains drawing up a constant succession of logs from the river; you see a dozen soaking monsters at once on the floor opposite, each being carried hither and thither to the great saws that evermore go up and down—a log passes you, losing two outside slabs as it goes; it comes back through a gang of saws that cut it into twelve boards; it passes away on wheels; it is succeeded by others and again by others—a tredle line of timber day and night is passing in as logs and out as lumber. Down the river perpetually come logs by the thousand, divided off above the mills by booms, each coming to the mill of its owner, directed upon the toothed chain by the pike pole, and drawn by it to the saws. Here, too, continually small portions of rafts—a score of pine logs with, it may be, four heavy beams pinned above—each with its crew and their little wooden shelter from the rain, pass down through long narrow artificial waterways planned to round the cataract, by gentle successive falls, to be united in a larger raft below. All the scene—the numerous mills, the centres of enormous piles of bright new boards—the ever coming and going lumber—the rattle of the different machines from all quarters, the all-pervading sound of a hundred great saws forcing their way through wet pine wood—the crowding thousands of men, horses, and carts everywhere, swarming in the mills or manœvering in the roadways around, give a picture not to be surpassed except, perhaps, by itself at night, when the electric lights color with silver all the scene, and show in vivid glow the dark waters of the Ottawa, and the freight of logs ever pouring towards the open jaws of the mills. You might imagine the workers the swarm of demoniac Genii forced to build, on pain of Eblis, Aladdin's palace in a night.

A great part of the city of Ottawa is a city without residents—a city of lumber. Here are piles of lumber—square piles—quadruple piles, diagonal piles, built tier on tier high in the air above—lumber for all intents and purposes—acres of inch boards—mountains unending of joists, beams, sheeting—every sort and kind of lumber which our forests give; streets of lumbes, blocks of lumber—miles on miles of lumber—and when past it, it is lumber still, for here are numerous large houses crammed from earth to rafters with short lengths for pails, for boxes, for purposes beyond count. Fast as the great mills build the city up, so fast great railway trains and multitudes of immense barges pull it down and carry it away. The air is redolent with the smell of lumber; you breathe pine and resin at every step. From here again this great mass of wood, coming but by one channel, leaves by many, and spreads itself by a hundred railways over all the Northern States, and by river to Quebec, to England, and to the Continent.

At Ottawa, the headquarters of many leading lumbermen, some valuable opinions were obtained from Messrs. Pattee, Bronson, W. Mackay, J. Gordon, and others well acquainted with the Ottawa woods.

Leaving Ottawa, there is nothing to chronicle in the interests of forestry until Pembroke is reached, where many gentlemen experienced in lumbering and forest operations are seen and their views obtained.

After Pembroke, the next stopping place is Bisett's Creek, where:—

Mr. McCormack, the manager of Young's estate, attends to extensive lumbering operations, and proposes to take me to the nearest scene of action, twelve miles over the hills, which here are seen in all their autumn beauty. A lumber wagon is equipped by filling its box with clover hay. Mr. C. sits in the rear, I and the driver in the high spring seat in front. "Get along," he cries. The whip is cracked, two sturdy horses are doing their best, and we are rolling, jostling and tumbling over the roughest road in the universe— up great ranges of hills, down them, over rough corduroy logways in the gullies, over rocks on the level, over great stones everywhere. The waggon rattles down a hill, and rushes across a hundred boulders— you are thrown violently against your companion—you are thrown to the other side—you fly a foot upward by the action of the springs you fall a foot downward by the action of gravity. Holding to the seat till your arms are numb, you ask what is to be the length of the journey. "Four hours," replies the imperturable Mr. C. from the rear. Rattle! smash! bang! You wonder what four hours in purgatory are like—or whether the German stone roller trough of torture was worse than this; and at last, seeing your companions not at all affected, you begin to get used to it. The prospect from the wagon is but one of many—it is a *brule*. Sixteen and fourteen years ago—one great fire meeting the dead edge of the other—a tract here seventy miles by ten or fifteen, almost without exception a forest of noble pines, was burned into desolation. Pine went there which would have brought many millions now—a forest was destroyed which, continuing a forest, would have brought large sums yearly. Far as the eye can see, closely standing, are the dead trunks of great pines, below them a youthful forest of poplar bright with yellow, and birch still in its greener hue—below again a dense dark red carpet of ferns—of blue berry—of wild peppermint. From noon till night we toil along through a scene of such wilderness where the partridges are

> "So unacquainted with man."

that they walk like barn door fowls beside the wagon. At last a ruddy glow, not from door or window, but from the roof of a large, low log house, and half a dozen "Bon jours" from choppers lounging outside, show that we have reached the shanty.

> "It is a lodge of ample size
> Though strange of structure and device
> Of such materials as around
> The woodman's hand had readiest found.
> Lopped of their boughs—their huge trunks bared
> And by the hatchet rudely squared
> To give the walls their destined height—
> The sturdy oak and ash unite."

But not exactly so—all here is pine. The shanty is forty feet by thirty inside; a great square opening in the roof lets out the smoke from a fire in the middle of the floor below—earthen there—pine all around. Rows of bunks, two stories high, formed of logs and slabs and filled with hemlock boughs of pleasant odour, covered with thick grey blankets, form the beds. A line of flattened logs form benches around the room. The ubiquitous cook is balancing on an immense crane vast pots over the fire, and soon all are busy with tin pans of bread, pork, beans and strong tea. It is an interesting and animated scene—the great bright fire lighting up the sturdy forms and brozed visages around—the sober dress of Ontario—the bright colors and gay sashes of Quebec—the chatter in French and English—the pipes inevitable and numerous after supper, adding to the smoke clouds "rolling dun" through the roof, while a fiddler, always found in such an assemblage, plies his cheerful instrument for hours. At last, however, drowsiness prevails, and every axeman finds his bunk, pulls his blanket over him, and a chorus of snoring fills the air.

Next morning we view the forest. It is a vast pine limit, extending—here dense with far stretching succession of multitudinous pines, there lightening with a grove of maple or of birch; here again opening into a beaver meadow, its rank grass an island of herbage in the forest sea—for many miles, from the near Bissett to the far Petewawa. The foreman, Mr. Hall, accompanies us to the places where trees have been lately cut down for saw logs, great piles of which are already placed on roll-ways ready to be taken by the winter sleighs to the river, here four miles off. All around are spread in confusion the *debris*—numerous balsams cut to clear the way, piled in heaps around or scattered, "Anywhere, anywhere out of the road," rejected butts of logs, great tops of trees, a ready fire road indeed should sparks in summer drought light on their inflammable surface.

"Yes," said Mr. Hall, "no doubt they are dangerous. There would be but one way, if we were to clean up after ourselves—that is to carry them all into piles in as open spaces as possible, leave them till next year, and burn them then; they would not burn well when fresh. I do not know what it would cost; that would be found by experiment—but no doubt it would leave the forest in a less dangerous condition."

Everywhere here, the whole week long, resounds the crash of falling pines. Two athletic young fellows, clad in the strong homespun of the settlements, if they are lucky enough to have those who will weave it, if not in the less durable store goods, yellow leather moccasins, bright sashes around their waists, the great rolling muscles standing out and working visibly on arm, back and shoulder, stationed at the foot of a tree, swing with easy grace their long handled axes against the trunk, great chips flying right and left like hail. The tall tree totters at its base, and falls, the sound reverberating for miles. The choppers climb on the log, trim the branches as far as they need; one, two, three or more lengths are cut from the trunk, and it lies till the horses and sledges can draw it to the river.

All through this great extent of pine and lesser hardwood—in densely wooded slope or opening of lake and beaver meadow—vales dark and deep as that of Hinnom, where the great pine tops, broad and green, scarce reach the level—mountain tops where they wave dark defiance to the elements—everywhere lie the trains of great chips—the abandoned tree top—the smaller trees cut to clear the way, now obstructing it—all around. It has been lumbered over for years, and with care might be forever. "No fires just here of late," says the foreman, "but there have been many in the country."

After our journey back to the depot, from a high plateau, we observe one of the many magnificent views obtainable here. For thirty miles you look down the great valley of the Ottawa—the distance closed by high mountain ranges—the sides bounded by them twenty miles apart. Along the valley, broad, tranquil, its gently moving waves shimmering at hand—placid in the far distance—the great Ottawa rolls its sinuous length. Half way along, rounding it way beside a large island, which, covered with undulating poplar, bars its course, the Bissett joins the greater stream. Here lies before you at this season an amphitheatre so immense, of colors so varied and gorgeous, as scarcely eye has seen elsewhere. All these circling mountain sides are clothed in the richest colours. Here the waving poplar covers them with the brightest yellow, there, where only undergrowth flourished they are dark red brown; farther again a forest of young pines, gleaming bright green in the sun, ascends from river to summit, and everywhere interspersing, wearing the gayest hue of all, are great stretches of soft maple, crimsoning all the landscape, and adding greater beauty to what, even without it, were most beautiful. But to view it in perfection, you must approach it in early morning, when the dense mist, rising from the low grounds render all else invisible. Presently this will rise, gather itself in great billowy columns across the sky, move in rolling masses to the far distance, and out of sight. Then the curtain of nature has risen, the vast panorama is spread out before you, mountain and valley, forest and herbage glistening with dew; bright with the morning sun, and the great river below all, an immense serpent of molten silver, winding his devious way to the distant sea.

The next stopping place is Mattawa; where further statements from Crown Land Agents, storekeepers, settlers, etc., are had.

*(To be Continued.)*

## GAS ENGINES AS MOTORS FOR WOOD MACHINERY.

Gas engines, even in the eyes of those who are favorably disposed towards, or interested in, steam engines, have certain advantages, which, in common fairness, must be admitted. As applied to a saw mill they can be placed in a cellar or upper room. They require but little space, and are altogether unassociated with steam boilers, mill chimneys, and smoke nuisance. They save the site and cost of the boiler and chimney, the coal and the site of the coal store, the wear and tear of the boiler, boiler insurance, and a great slice of fire insurance. They save the cost of a stoker and nearly all the water charge, the fuel and time in getting up steam every morning, and the fuel consumed during meal times, and they save the consumption of fuel when the engine is not at work.

In making the statement it may appear strange, but it is nevertheless one of the principal advantages of the gas engine, that when out of work it is not consuming fuel of any kind. With an owner of machinery who can guarantee regular and constant motion this is no consideration, but with an owner who has only accasional use for his machinery it is a consideration of the first order.

Sir Frederick J. Bramwell, speaking of the gas engine, says:—

"In 1866 the 'Hugon' gas engine consumed 74 cubic feet of gas per indicated horse-power, a consumption that has been bronght down to 20 to 23 cubic feet. With the low price of gas commonly prevalent in England, this con-

sumption does not cost more than some seven-eighths of a penny per horse-power per hour.

"It is admitted that non-condensing steam engines may be worked with five lb. coal per indicated horse-power per hour, at a cost of one half penny; still there are other savings to the credit of gas engines, which would balance the difference of cost.

"Engines are now being made to develop 50 horse-power, and when used on a large scale, so that it would pay to have an attendant devoting his whole time, there is no need to work them with illuminating gas from the street main, they can be driven by home make gas, on the Dawson system, and when worked in this way 1½ lbs. of 'culm' will give one horse-power, and one lad is sufficient to manage a gas-producing apparatus adequate to provide for engines of 300 indicated horse-power."

At the head of their disadvantages stands their first cost, which is more than double that of steam engines; indeed, it may be taken that their cost is about equal to a steam engine, boiler, and chimney combined. This arises in a great measure from the intricate and elaborate character of their mechanism and to the royalty of patent rights over their various parts.

A further detail under this head is the unsteady or irregular character of the power evolved. They are supplied with ample fly-wheel power, and very sensitive governors for regulating the supply of gas; but, nevertheless, they are wanting in regularity when compared with the steam engine, a detail that arises out of the intermittent character of the force employed. There are some makers of engines who claim to obtain power by a vacuum following the explosion, but is not claimed that it is of equal force with the explosion itself, although it is claimed that its action causes nearly as much power to be obtained as if the ignition took place every stroke, instead of, as is generally the case, every second stroke.

Gas engines are objected to on the score of the cost of the gas they consume. This is so marked an objection, where continuous power for 10 or 12 hours a day is required, that no one will venture upon a gas metor where steam can by any possibility be used. This is so intensified where large engines are required that in practice the motor is nearly wholly used on small powers. As we write we notice the circular of one maker, who says, "any size of engine from 1½-horse up to 16 horse can be supplied." This maker draws his limit at 16-horse; but in practice the engines he turns out are nearly all small powers. Users of motive-power on the large scale, unless some special object exists, pin their faith upon steam.

There is an objection to gas engines arising out of their difficulty of starting, and their liability to revolve the wrong way round, from which considerable damage may arise. Improvements have been made in the igniters and and the valve arrangements, by which immunity from this evil is claimed.

Another objection arises from the number and size of the slides, and their liability to get out of order and allow the gas to escape. To keep this insidious vapor intact, the working parts are highly saturated with oil, which combining with the carbor or residue of combustion sets up a wearing action practically unknown to the steam engine.

The attention of inventors is closely turned upon this point or detail, and those who maintain that the engine of the immediate future will be constructed without slides, and only one valve to take in air and gas to let out combusting.

A further objection arises from the hard and fast character of their cumputation of power. Gas engines give out very little more than their nominal reputed power, whilst a well-designed or made steam engine will indicate three times its reputed or nominal power.

As we write we are reminded of a case where a 3½ horse power gas engine was put down 9 or 10 months ago: it is said to be doing the work of a 6-horse engine, but the owner is trying to effect a sale at two-thirds its orginal cost. He states, on the one hand, that he requires more power, and, on the other, that he wants steam for heating purposes; but there can be little doubt that the hard and fast character of its nominal reputed power is the main cause of the wished for change.

As we write the position of the gas engine, where light or occasional power is required, is well secured, and having won this position, and being admittedly in its infancy, there is great future before it. It is an undoubted fact that by compressing the compound from which the motion is obtained, and associating therewith the power of the vacuum, a motor of no mean order is obtained. As with all new machinery, there is a wide field for improvement, one to which many practical engineers are devoting their best attention, and hence we must not be surprised if in a few years it is improved up to the level of the steam engine, and is successfully applied to the large powers as well as to the small powers. It is an old saying that "the world was not built in a day;" but it is a fact that the progress made by the gas engine as a motor during the last twelve years is without parallel in this century of mechanical invention. —*Timber Trades Journal.*

### The Inventors' Exhibition.

LONDON, May 4.—The Inventors' Exhibition has been put in as fair a state of completeness as possible for the inspection of the Royal party. The most extensive exhibits seem to be in implements of war, of which there is a remarkable display. The show of appliances of electricity is excellent. The Court assigned to America is not more than a third applied for, and is compelled to be filled by English exhibitors. Much dissappointment on this account is expressed, but this is largely explained by the fact that America inventions are seen in all parts of the exhibition. The Russian Court, abjoining, contains nothing but score of unpacked cases. The buildings were crowded at the opening. The prince of Wales was received without cheers though much enthusiasm was expected after his return from Ireland. The Princess of Wales the Duke of Edinburgh, and Duke of Cambridge Lord Granville and Sir William Vernon Harcourt were amongst the distinguished persons present. The audience was very large.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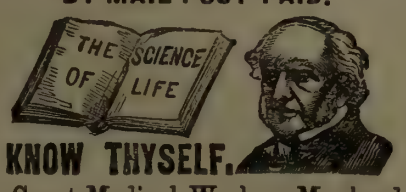


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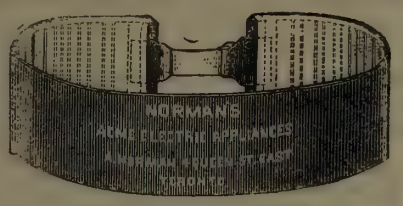


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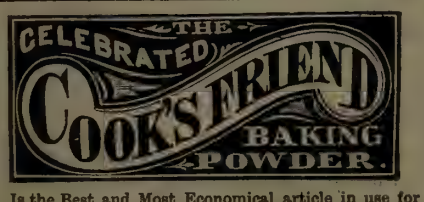


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., MAY 15, 1885.*


A PORTION of the northern part of Langdale, and four townships of Lincoln county, Wis., have been set apart as Forest county.

UPRIGHT, EMORY & Co., during the past winter, got out 120,000 ties and 4,000 cords of wood at Charlevoix, Mich., and in that vicinity.

THE freight traffic on the Chicago & West Michigan railroad is reported heavy this spring, mainly on account of unusually large lumber shipments.

IT will require from 800 to 1,000 men to get the 98,000,000 feet of Penobscot river, Me., logs into the booms. Wages range from $1.25 to $2.50 a day.

CALVIN & SONS started their first raft of 50 drams of oak timber from Kingston to Quebec on the 4th inst. is tow of the tug, John A. Macdonald.

J. H. HULL has purchased from the Brentwood Lumber Company, of Penetanguishine, Ont., their shingle mill and timber limits in the township of Muskoka and Ryde, Muskoka district.

THE spring opens with favorable prospects for the lumber trade; and when this industry is in a good state it is a great help towards a healthy and active condition of business generally.—*Monetary Times.*

A DESPATCH from Oshkosh, May 4th, stated that C. M. Charnley, of this city, had bought of Choate & Bray, of Oshkosh, 18,000,000 feet of standing pine, in Langlade county, Wis., for which $40,000 was paid, or $2.22 a thousand.

FOREST fires, on May 3rd, were prevailing in the Shenendoak valley, south of Harper's Ferry, Va., and in the Blue mountains. The great Cacapon mountains, in Berkshire county, were also ablaze, and much valuable timber was being destroyed. Fires were also raging in Raleigh, Tucker and Wyoming counties.

THE Big Mill commenced work on Monday, April 27th, and the hum of its machinery is now pleasant music to all residents of Deseronto. Last year this great establishment made a good record for work.

THERE will be about 25 million feet of hemlock and spruce cut this year at Nicolet, Que., by Messrs. Geo. Ball, McCaffrey and O'Shaughnessey's mills, and about three million feet, in logs, were carried away with the ice a few days ago.

TEN inches of snow fell in Leelanaw county, Mich., April 28th, and E. L. Miller improved it at Millar's Hill, by finishing up his winter job of hardwood logging. Sledding logs so near May 1st as that is worthy of record, even in northern Michigan.

A TELEGRAM to the insurance offices at St. John, N. B., April 29th, reports the loss of the bark Bittern on Browse Island, Australia. She was on a coasting voyage between Hamilton and Port Darwin, with a cargo of timber. The vessel and cargo were insured for about $20,000. The crew escaped from the wreck, which was abandoned.

A FIRE at Steven's Point, Wis., May 3rd, destroyed 5,000,0000 feet of lumber, belonging to Herren & Wadleigh, and 500,000 feet owned by Robert Main. The lumber was mainly high grade. The loss was placed in the despatches at $70,000, with insurance not stated, except in the Case of Main's loss, on which there was an insurance of $3,500.

## DO NOT LOSE ANOTHER SPRING.

*To the Editor of the Canada Lumberman.*

SIR,—Nothing impresses the traveller through Ontario with so deep a sense of wasted time and lost opportunities, as to observe, here and there, perhaps even ten miles from each other, some few farms well sheltered from the north and west winds by the beautiful and impervious evergreen windbreaks, which are so easily and quickly grown in this country when properly set about. And then to pass, mile after mile, by farms from which the trees have been taken till what might have been a handsome farm and residence is but a number of squares of earth with some buildings in one corner. A place from which the summer wind will dry the moisture before it has half benefited the crops, and where the snow, the protector of the winter field, cannot be evenly, but will be blown by the wind into drifts, which will permit no good wheat yield. The stranger passes by and thinks truly, "Now, a little work a few years ago and all these farms would have been as well protected as the one or two I have observed in my way."

Why not use this spring? In the Province there are many places where thousands of evergreens are growing up in clusters; if transplanted early in June—*without allowing the roots to dry in the sun even one minute*—they will be just what is wanted. Or, if none are near, nurserymen can supply them, and there is no better investment. Plant a thousand along the north side this spring and in ten years the farm will be value for much more money, and give better crops for all time thereafter. Plant them; give a little care for a season or two in mulching or stirring the earth near them—either will do—and every recurring year the planter will be more glad that he did the work.

Yours, &c.,
R. W. PHIPPS.

Toronto, May 7th, 1685.

## SHIPPING INDUSTRY.

The Ottawa *Free Press* of May 2nd says:—The prospects this spring of the lumber transportation and shipping in general exceeds that of any previous year since 1880. The extensive preparations which have been made by the promoters of the shipping industry in Ottawa for the past two months, is sufficient to substantiate the glowing prospect. Messrs. Murphy and McRea, one of the most extensive shipping firm in this city, have already engaged about three hundred men who will be employed on their boats and barges is importing and exporting freight of various materials. Mr. W. H. Easton, who has several scows, and a steamer anchored at the foot of the locks since last fall, has expended hundreds of dollars in improving the machinery and extending the floating capacity of these vessels during the past month. Mr. Harris is having his steam tug repainted and caulked. Several of these firms export timber and boards to the chief American markets, Chicago and New York being the two great centres of distribution of grain, live stock and lumber. In 1883 there were 1,909,910,000 feet of sawn lumber delivered in the Chicago timber market, a large portion of which grew on the Upper Ottawa and the remainder was cut in the lumbering districts of Michigan. Messrs. Bronson and Weston have chartered the steamer Allan Gilmour, and will use her with several barges in filling a contract for a large quantity of lumber, to be delivered at Burlington, Vt, and will commence operations in a few days. Across the Ottawa, on the Hull side, are a large force of men, principally mechanics, painters, machinists and carpenters, all employed in preparing for the spring trade. The steam ferry called the Thousand Island Rambler, the tug E. B. Eddy and barges will be ready for their native element in a few days, and are owned by Mr. Blanchard, who will conduct a large shipping and transport trade this season, notwithstanding that there is a fraction of a reduction under last year's percentage in the shipping tariff. Several government barges and dredges are also ready to be launched. A few days ago the C. P. R. was compelled to engage three hundred cars of foreign lines to supply the shipping demand of freight. Messrs. Pattee and Purley have shipped by rail over the C. P. R. an average of 25 carloads per day.

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, April 28, 1885, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 925 F. St., N. W., Washington, D. C.:—

316,912.—Chuck, lathe—W. M. Preston, Schoharie, N. Y.

316,768.—Hoop planing machine—G. S. Foster, Concord, N. H.

316,835.—Lathe for turning irregular forms—C. Schoenleber, Rochester, N. Y.

316,713.—Lathe tool—L. E. Whiton, West Stafford, Conn.

316,753.—Saw clamp—A. F. Delafield, Noroton, Conn.

316,570.—Saw gumming and sharpening machine—J. Richardson, San Francisco, Cal.

316,532.—Saw mill head blocks, attachment for—L. W. Forbes, Wilkinson, Ind.

316,568.—Saw sharpening machine—E. & A. Pratt, Grenoble, France.

316,659.—Saws, equalizing the tension in—W. H. Presser, East Saginaw, Mich.

316,752.—Sawing machine—P. G. DeBlanc, New Iberia, La.

316,634.—Sawing machine—W. Merrill, East Saginaw, Mich.

PATENTS ISSUED MAY 5.

317,187.—Bit stock—J. T. Pedersen, Brooklyn, N. Y.

316,931.—Chuck, lathe—E. B. Bailey, Windsor Locks, Conn.

317,209.—Lathe—L. C. Rodier, Detroit, Mich.

317,449.—Lathe feed mechanism—J. Flather, Nashua, N. H.

317,092.—Plane—G. A. Clifford, Peabody, Mass.

317,379.—Planing machines, attachment for—D. Lane, Montpelier, Vt.

317,221.—Saw mill set works—B. E. Sergeant, Greensborough, N. C.

317,256.—Saw mill set works—T. S. Wilkin, Milwaukee, Wis.

317,442.—Saw joining, etc., device—V. T. Cummings, Groveten, Tex.

317,221.—Saw mill set works—D. Lang, Montpelier, Vt.

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## SELECTING TIMBER.

Although the beneficial results anticipated to be derived from the knowledge that a school of forestry may diffuse among foresters and those interested in the cultivation of trees, may not be materially felt by the present generation, still a study of the subject by those engaged in the timber trade may cause them to acquire some useful information in the way of enabling them to find out what are the conditions and situations in which the growth of the best qualities of the different varieties of timber may be expected. Without such information, unprofitable bargains, which are frequent from this cause, are liable to be made. Mere external examination of the tree is thought to be sufficient, and although in many instances this may be relied on and thoroughly satisfactory in its results, yet there are cases in which just the reverse happens.

To one who labors under the impression that this is all that will be required of him, viz, to be able to judge of the quality of a tree from its external appearance, a falsification of his anticipations is perfectly unaccountable, and he accordingly blames his ill-luck or chance, not thinking that it is to be explained by his own neglect in not studying the conditions and situations under which the tree has been cultivated. There is no doubt that one who is accustomed to the inspection of timber becomes in a short period familiar with the qualities of timber that may be expected to be found growing in his own immediate neighborhood. But in recent years it has become, and continues more to become, a necessity to secure supplies from a distance and from strange districts, where his local knowledge will be of very little use to him.

In these articles we propose to indicate, in a general way, what kind of timber a tree may be expected to yield from its external appearance and surroundings, and taking up each variety separately, we shall give the result of our personal experience and observation. The tree we should naturally treat on first from its importance is the oak, a variety which is also pretty general throughout the country, and which, perhaps, more than any other is found to differ in quality according to the soil and situations in which it is grown. Although this tree gives as many external indications of what may be expected of it when opened up as will be found in other trees, the defects which are usually discovered in this timber are shakes, rot, a superabundance of sapwood, peg knots, or twisted grain.

The subject of shakes has much vexed timber merchants, as next to rot they constitute a defect that not only deteriorates the value of the wood, but renders it for any industrial purpose of little or no use. Many theories have been set up as to their cause, so very frequent is their occurence is this particular kind of timber. What is mostly supposed to be the cause is a diseased parent producing a diseased offspring, so that generally shaky trees are produced from the seed of a shaky tree. It is unquestionable that in many instances this is the reason, although shaky trees have also been produced from the seed of sound trees, but have become defective in their growth from causes which might have been prevented by judicious management on the part of those responsible for their cultivation, such as having them planted in situations where the conditions necessary to healthy growth are absent. This defect of shakes in the oak, fortunately for the timber merchant, almost invariably shows itself in the exterior of the tree in some way or another, and as a rule is a point that may be conclusively decided on.—*Timber Trades Journal.*

A MUSKEGON, Mich., paper last week said: "Cody & Moore's logging railroad terminates at Muskrat lake, a little below Lake City. To get their logs into the lake they run out on a trestle work over the water and roll them off. Last winter they wanted to run another track out, so they laid logs on the ice, put stringers on these and their track. It worked all right till the other day, when they made their last trip. The ice having become weak it gave way and now their logging engine lies at the bottom of the lake in 42 feet of water and about 150 feet from shore, and the problem is how to get it out."

### SASH, DOOR AND BLIND MANUFACTURERS.

It must be a strong compulsion which will insure at each monthly meeting of an association, the membership of which is so widely scattered as that of this organization, an attendance nearly equal to the whole number of firms belonging to it. The meeting on Tuesday of this week was no exception, but, in fact, was one of the most interesting and profitable of any that have been held. After the adjournment the gentlemen present remarked that it was the best meeting they had ever attended.

The monthly meetings thus far have shown a steady advance towards unanimity of sentiment and action. Vexatious questions have been met and settled, until at this last meeting there was scarcely any conflict of opinion. The association prospers in adversity, but with improved trade might not stand so well together. However, as its chief use is to prevent disastrous losses in dull times it may be considered to be approaching success.

After the formal opening of the meeting a communication from the Mississippi river branch association was read, requesting, first, that action be taken towards a revival of the price list; second, that members be unrestricted in sales to each other, and that the secretary might be made the medium of communication in such transaction; and, third, that a slight advance be ordered in the price of glazed sash. A request from the Minneapolis branch was read, that a slight advance in glazed sash be made, provided that the production be restricted to one-half capacity upon stock work.

Pending direct action on these requests expressions of opinion as to the condition of trade, stocks on hand, and prices, were called for. With the exception of the Minneapolis representatives, all expressed the opinion that the movement of stocks out of warehouses had been less for the last thirty days than immediately previous. Stocks in general had been kept down by a restricted output, but glazed sash was accumulating to some extent in excess of other lines. This, however, was not due to any lack of real demand, but was only in comparison with doors, for which a speculative demand had arisen. Prices on glazed sash were reported to be firmer than on any other line, notwithstanding the heavy stocks. Prices were stated to have been firmly maintained, and no one claimed to have confirmation of any reported cuts. The fact that prices have been so well sustained was thought by some to be the reason for the temporary slackening of demand, as the jobbers were largely supplying the consumptive trade with goods bought at lower prices than those now ruling, and were now out of the market for the time being, in the hope that the manufacturers might be forced to weaken. One member expressed the opinion that the present situation was an out and out fight between the jobbers and the manufacturers for the mastery. Some stated that the jobbers with light stocks were borrowing from each other in order to postpone purchases at first hands. All agreed on one point, that the key to the situation was in a reduction of the output.

The March meeting fixed the output at not to exceed two-thirds of the capacity in stock work, but that action was based on the anticipation of an increased movement for April, which hope was not realized. Now all were in favor of a reduction to one half, which expression led one member to remark, "I told you so."

The phrase "on stock work" was subjected to some criticism, as that restriction enabled some concerns who make a specialty of the eastern trade to overrun their allowed product. This objection took shape in the resolution subsequently adopted.

Some objection was raised to the f.o.b. at factory clause on small lots, claiming that it helped part of the manufacturers at the expense of others, but all finally acceded to it. All questions under discussion were referred to a committee to report at the afternoon session.

In the afternoon the committee handed in its report, which, after a discussion that was in the same line as that above outlined, was adopted substatially as follows:

The production of the factories is to be reduced to one-half their capacity on stock work; stock work to include all such pine doors, sash and blinds as have special sized stiles and rails, and are sold to dealers. The restriction to be in force 60 days, beginning with May 1. This extended time was apparently to shut off the possibility of members taking contracts for a month ahead, which would compel them to run full. The members were required to each keep a stock book for the inspection of the inspection of the secretary, whose duty it is to see that the curtailing agreement is observed.

The members were authorized 'to make sales to each other at such prices as they might see fit, that no surplus stocks, or poorly balanced stocks, might be disposed of without affecting the general market.

The only change in prices recommended was an advance in the price of glazed sash. The new discount on this line is 55 and 5 per cent. off, instead of 55 and 10. The meeting, having arrived at this satisfactory conclusion, adjourned to May 27th, at the Tremont House, Chicago. *Northwestern Lumbermen.*

### FIRE IN CHICAGO.

CHICAGO, May 8.—Shortly after noon to-day a spark from a locomotive set a fire in the heart of the great pine lumber yard district lying along both sides of the south branch of the Chicago river, near the southwestern city limits, in the vicinity of the wooden built section known as Bridgeport, and close to the stock yards with acres of wooden sheds and pens filled with cattle, hogs and sheep. A fierce wind was blowing and the flames spread rapidly. The entire fire department was called out, but had little or no effect on the burning pine and shingles. The news of the fire spread rapidly to the business centre of the city, and created alarm lest the fire should assume the proportions of the great conflagration of 1871, which came from the same direction. Great brands were carried forward by the wind, setting fire to new piles, and several fire steamers and the men running them had narrow escapes. Starting upon the west of the river, the flames consumed all the lumber between 35th and 38th streets, an area of about 400 by 2,000 feet. It set fire to a canal boats, which floated across the river and set fire to lumber on the east bank, which covered an equal area, and this with one or two planing mills was consumed. Brands were carried eastward and set fire to several small frame houses occupied by employes in the lumber district. The fire department, however, made a stand at this point and succeeded in preventing the spread of the flames into the residence district. The fight continued throughout the afternoon, and it was nearly seven o'clock before the conflagration was brought under control, having practically burned itself out. A heavy rain during most of the afternoon was of material assistance. The entire area burned over is 870 by 2,300 feet. Forty-five million feet of lumber, of the value of $900,000 was burned.

The principal sufferers are the Chicago Lumber Company, $400,000; Bigelow Bros., $175,000; Adams, Hastings & Co., $85,000; J. W. Hinckley, planing mill, $26,000.

### FOREST FIRE IN SCOTLAND.

We hear of forest fires commonly in America when hot and dry weather sets in, but we are not accustomed to expect them at home, and especially in Scotland, where Dr. Johnson, a little over a century ago, despaired of recovering his lost walking stick because he thought such a piece of timber must be valuable in a country so bare of trees. But a great change has taken place in the arboriculture of Great Britain since his day, and it was stated that by a fire which broke out recently in Clacknadarroch Forest, Inverness-shire, the property of the Duke of Richmond, five miles of young trees have been destroyed. Two acres of wood and 1,500 acres of heather were also burned recently on Castle Forbes Estate, Aberdeenshire, belonging to Lord Forbes. Two hundred acres of heather were also burned on the estate of Mr. Grant Drummond, also in Aberdeenshire. Yet it is hardly a month since Scotland was buried in snow.—*Timber Trades Journal.*


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☞PLEASE MENTION THIS PAPER. 12t.l

UNDER proclamation of Governor Martin Kansas observed April 2nd as a holiday in the business places and in schools for the purpose of tree planting, a custom which has given to that once barren state in a few years twenty millions of fruit trees and two hundred thousand of fruit trees. Eight states observe this tasteful and beneficial custom.

"Say, why is everything
Either at sixes or at sevens?"

Propably, my dear nervous sister, because you are suffering from some of the diseases peculiar to your sex. You have a "dragging-down" feeling, the back-ache, you are debilitated, you have pains of various kinds. Take Dr. R. V. Pierce's "Favorite Prescription" and be cured. Price reduced to one dollar. By druggists.

WE take pleasure in noticing the enterprise of Mr. Thos. Best, of Mount Pleasant, who has recently built a grist mill, and is now engaged in erecting a saw mill alongside of it.

**It Astonished the Public**

to hear of the resignation of Dr. Pierce as a Congressman to devote himself solely to his labours as a physician. It was because his true constituents were the sick and afflicted everywhere. They will find Dr. Pierce's "Golden Medical Discovery" a beneficial use of his scientific knowledge in their behalf. Consumption, bronchitis, cough, heart diseases, fever and ague, intermittent fever, dropsy, neuralgia, goitre or thick neck, and all diseases of the blood, are cured by this world-renowned medicine. Its properties are wonderful, its action magical. By druggists.

## EMERY WHEELS v.s. GRINDSTONES FOR WOODWORKING TOOLS.

In speaking of the emery wheel, says a writer in the *Builder and Wood-Worker*, comparing it with the common grindstone I know I shall make a counter-current to the opinion of a great many who advocate its use to the exclusion of our old tried and trusty helpers, the staid and always reliable grindstone. I can not, nor can any one, honestly deny but that the emery wheel has created an entire revolution in the old method of grinding, and for small tools used in the manufacture of sewing machines, guns, pistols and such like work, it would seem that when we came to know their true value it would be almost if not quite impossible to get along without them. And we can not, when we come to take convenience and economy into account.

We can not use a grindstone an inch or less in diameter, as we often have to use emery wheels or plugs in grinding mills and small tools in gun making. Here is where the emery and corundum wheels come in, and there is no competition with the grindstone, and they are a long way in advance of any at present known method of grinding.

Here is where I concede to the value of emery and corundum, but when we come to grinding wood-cutting tools, I must take exceptions and stand up for the grindstone. To those who have both it seems to me that there needs but little argument to convince all that the edge of a tool when ground on an emery wheel is hard and brittle, and not as likely to stand right up to good, hard work as when ground on a grindstone. My attention was first called to this fact when a few years ago I had the job of assembling ten thousand Remington locks. The screw drivers had to be ground very nicely, and very often they would break and have to be reground. Emery wheels were very convenient and it was much less trouble to grind on them than it was to go to the grindstone. But we always found that would not stand near as much when ground on the emery wheel, and so well were we satisfied of the fact that we always used the grindstone for this purpose. This fact led me to observe the effec of emery grinding on other tools, and especially on wood cutting tools, as I was then, and have been ever since, interested in woodworking machinery. Anybody that knows, or has had experience in grinding chisels and plane irons on an emery wheel, knows how almost impossible it is to bring any thin-edged tool right up to an edge without making blue spots on them, showing that the temper has been started in these blue spots, which takes a great deal from the value of a plane iron or chisel, especially for nice work.

I know there is great deal in getting used to an emery wheel, and when we have, so to speak, got "trade learned," we can take more liberties than when we first begin to use them. When I first began to use one I had work that I ground on the face of an upright one 24 inches in diameter, and I used to grind the ends of my fingers off every little while, but when I got the hang of the thing, or got the "trade learned," there was no trouble about grinding off the ends of my fingers (so much for illustration). The introduction of emery wheels for sharpening saws was a long stride in advance of the common method of sharpening saws with a file so far as economy is concerned, but there has been hundreds of saws ruined by inexperienced persons grinding them.

But a few days since I knew of a 60-inch circular saw that was sent back to the makers because the owners could do nothing with it. The makers found that nearly every tooth was cracked down in the throat and were obliged to cut it down the whole length of the tooth before they could get rid of the cracks. The filer instead of milling out the throats, had worked them down with an emery wheel, and they say that is what made the saw crack as it did.

Here, too, is where the grindstone and emery wheel do not come in competition, although I have seen large circular saws ground very nicely on a common grindstone, and I do not see why a saw may not be sharpened on a grindstone as well as on an emery wheel, if the proper arrangements are made to get the saw to the stone.

Had there been as much of an effort made to make the arrangements for grinding planer knives on a grindstone as there has been to bring the emery wheel into use, I have no doubt that the work would be just as well and perhaps a little better done. There never has, to my knowledge, been any such machinery made to grind planer knives with. And if we except the common knife grinder made by most makers of wood working machines and which is worked by hand, nothing has been done to bring out what might be done on a common grindstone.

There may be objections to using water as we do on them, but with the arrangements that could be made, there is no reason why work and men could not be kept as clean on a grindstone as on an emery wheel. I know that one objection to the grindstone is that unless the person buying knows what he is about, he is just as likely to get a poor quality as a good one. The usual way of ordering is to get the size wanted of either kind of stone and that ends it. The stone comes and is hung, and if it is good all right, and if poor the help call it bad names until worn out and replaced by another one not a whit better.

The emery wheel has this advantage, that you can order and get a uniform grade without trouble, and also they never are injured by being left with one side in the water to soften, so that when we come to use them one side wears faster than the other. But for all these adverse conditions I must say that if properly selected, used, and cared for, there is nothing uperior to the grindstone for all wood-cutting tools. We do not know the possibilities of a thing until we bring it to the test. We do not know what an animal will do until it passes through a long course of training, and has its good qualities developed. So we hardly know what we cau do with our grinding stone till we put our brains to the work, and bring out devices and apply good machinery to it, and then we shall find out this old friend of ours shall stand the test and do all and more than some other material. My idea is that it is especially adapted to grinding knives and cutters of all wood-working machines.

It leaves whatever is ground on them in a much better condition after grinding than either emery or corundum, and this partly, if not altogether, comes from the fact that the work ground is always kept cool and never burns the edge to make it brittle. I think a great trouble in selecting stones for common grinding in planing mills is that they get too thick ones. A stone four or four and one half inches thick is far better than one seven or eight inches thick.

Now if some good genius would get up the same machiue to grind knives on a grinding stone that has been gotten up to use with the emery wheel, I think he will meet with great success. Each, of course, has its special field where it must necessarily succeed best, some of which I have already noticed, but I must yet hold to the belief that the common grindstone is far the best for grinding all manner of wood-cutting tools.

## TREE PLANTING ON SCHOOL GROUNDS.

Some years ago I found several young oaks growing up among a hedge of rose trees in our garden. As there were no oaks in the immediate vicinity it was rather a subject of astonishment to me, until I found out that my children had picked up some acorns in the woods and had sown them there. Nothing could be more simple and trivial, I admit; nevertheless it set me a thinking, and I have not done thinking yet. The children were so young then that I would not have credited them with sufficient reason to go through the process of looking for seeds in the woods, sowing them with the purpose of producing trees, and watching in the following spring for the realization of that purpose.

It struck me then that the growing of trees would be a valuable help towards the education of children. We try to teach them to observe, to think, to persevere, and we have done a great deal when we can make them see clearly for themselves that success is the direct result of labor, and when they have learned to associate the two in their minds. Among all the mental exercises resorted to in our schools, I can scarcely see one that will secure the same results more easily and more effectively than the culture of trees.

There are not so many schools—there ought to be none—with so little ground as not to allow room for at least a seed bed and a nursery for young trees. Get the children, first of all, to work the ground until it is well drained and sufficiently deepened and mellowed for the purpose. There you combine physical and mental work, and an important lesson for the future; for it is a matter of vital importance that the attention of the growing generation should be turned seriously in the direction agricultural pursuits; we cannot begin too soon to impress the youthful mind with the idea that conscien tious care in the preparation of the soil will be bountifully repaid.

We have been skimming over the surface of this continent of ours, as if it were limitless; we shall, sooner than we expect, be induced to wish, like Alexander the Great, for other worlds to conquer. We must remember that this is the ground upon which the children of over sixty millions of people will have to find food for themselves and their increasing families, and millions of people on the other side of the Atlantic, and still make room for the surplus population of the Old World. It is time to find out what our soil is worth, and learn how to get as much as possible out of it; and the best way to reach the people is to teach the children. But this is a digression; lut us return to our subject.

When they have prepared their ground carefully, take the childrrn to the woods to collect the seed, in its season, or buy it if you are too far from the woods. Teach them to discriminate between good seed and bad, and make them sow it properly.

Make them study the form and appearance of the young trees as they first come up out of the ground, so that they will not mistake them for weeds. Make them keep the ground free from all weeds, mellow it, and follow up, step by step, the growth of the seedlings, until they remove them to the nursery beds, where they will require new care and attention, till ready for final transplanting.

Their attention will be fixed, not only for days, but for seasons and years, on their young trees, thereby insuring a continuity of action. Prizes ought to be awarded from time to time, to those whose trees are in the best condition. When there is no more room on the school grounds, for transplanting those trees, the children, on Arbor Day, will have the privilege of ornamenting the streets, squares, and walks of their towns and villages with trees raised and grown with their own hands.

It will be, all through, a healthy recreation, and, at the same time, it will call into play every quality of mind which is indispensable for success in life. More than that, the best feeling of the human heart will be nurtured and grow along with those young trees; the love of nature, deep reverence for the power of God, in watching the growth of the tree from its seed, in noticing the development of its life. The child's heart will be enlarged as the range of his sympathies widens; he will see life everywhere—all around him. He will take pleasure in beautifying his school grounds, and by and by, his father's homestead; he will get attached to it, and, as he grows older, every tree planted by his hands will become a friend to him; and when the thought enters his mind that he may not live to reap any benefit from his work in growing those trees, he will, at least, learn the greatest of all lessons, that we have not been created by God to work only for ourselves.—*Hon. H. G. Joly, Quebec, in Educational Weekly.*

It's no secret that Dr. Pierce's Compound Extract of Smart-Weed is composed of best genuine French Brandy, distilled Extract of Smart-Weed and Jamaica Ginger Root, with Camphor Essence, and constitutes, therefore, the best remedy yet known for colic or cramps, cholera morbus, diarrhœa, dysentery, or bloody-flux, or to break up colds, fevers and inflammatory attacks. 50 cents. By druggists.

## THE TIMBER TRADE AND WAR WITH RUSSIA.

How would war with Russia affect the lumber trade? is a question which has been asked frequently since the probability of war between England and Russia began to be entertained. We find the subject discussed in the London *Timber Trades Journal*, published in London, as follows:

"It has been asked, supposing the present crisis culminates in a war between this country and Russia, what will be the effect on the Atlantic trade? There are many things bearing on this question, though, perhaps, not immediately connected with it, that have to be considered before forming any decided opinion. There can be no doubt but that Russia, should war happen, intends making, or endeavoring to make, a formidable attack on the commerce of Great Britain, through th means of privateers specially fitted out for that purpose, and it is the likelihood of success that will attend their efforts that we have to consider in endeavoring to sum up its effects on the Canadian timber trade.

"The pitch pine trade, of course, could not be interfered with, the cargo as well as the ship being in all probability neutral property. Where a cargo of spruce or pine was a neutral vessel, but bound from a Colonial to an English port, it would be a moot point whether a Russian warship could lawfully intercept it. Some laugh at the idea of Russia privateering, and maintain that a fleet of such vessels could not possibly be kept at sea through the difficulty attending their coaling and refitting, Russia having no possessions presenting a seaboard on the Atlantic or Pacific to which such craft could resort for that purpose, and neutral harbors would, of course, be closed to them. But supposing that such privateers did scour the ocean in search of prey, it is unlikely that they would care to waste their time over a wood laden ship, the cargo being of no use to them, and, if a sailing ship, the vessel either. Perhaps they might sieze a steamer, if they could catch her, and throw her cargo overboard, retaining the ship for subsequent use; in fact, it would be more than likely that wood laden steamers would be interfered with, as the privateers might, in the ordinary course, be expected to refill their bunkers from those of such traders as they could overtake, and, robbed of her coal, the trading steamer would hardly be able to continue her voyage, fully laden, even if permitted to do so. The swarm of steamers that now cover the surface of the globe, flying the British flag, would thus be the special aim of the privateer, who by their capture would be able to provision and coal at one and the same time.

"The sailing ship in the timber trade, on the other hand, would present no attractions for the rover of the seas, who might, perchance, if she were English, board her and take all the grog and provisions out of her, and with a parting shot as a remembrance, possibly carry away a spar or two, let her continue her voyage. Hence, in the event of war, there would be considerable danger in loading deals in steam bottoms, and we anticipate war risks on such cargoes would be very high. Sailing ships, as mentioned, might be interrupted, and perhaps roughly handled, but that they would be sunk we can hardly believe, their destruction answering no purpose, and would betray a state of wilful barbarism that we certainly do not believe the Russians capable of.

"Confined to sailing ships, we believe that little or no interruption would be experienced in the timber trade between Great Britain and her Canadian Colonies. If needful these latter might sail under convoy as in old times.

"The effect on prices, leaving privateers out of the question, of a conflict with the great north of Europe power could not be otherwise than upward; freights would be high, and the shutting out of the market of such a large competitor in the whitewood trade as Riga alone could hardly fail to stimulate the demand for spruce, though possibly their would not be any serious advance in yellow pine at the loading ports. Still the enhanced freight would add to the cost here, of which stock holders on this side would not be slow to take advantage of.

"The same may be said of Southern pine, mahogany, etc., which also in the case of war would become of additional value over here, consequent on the difficulties attending its shipment."

# Chips.

THE Canadian Pacific Railway are carrying a large quantity of timber from Ottawa to Quebec.

THE Rathbun Company have cut 450,000 pine logs this year. In addition to these they have also got out large quantities of cedar and other stuff for posts, railway ties, etc.

THE saw mill owners of the Ottawa district are making arrangements to commence operations immediately. Several have already commenced running.

ON Sunday, April 28th, a drive of thirty or forty thousand logs belonging to Mr. Boyd broke loose at Bobcaygeon. Two men who were breaking a jam were carried over the slide, but being experienced river men they came out all right. A steamer was used in collecting the logs.

THE present is the time for most of the Ottawa sawmills to begin cutting. They are all getting ready and some have already started. E. B. Eddy was perhaps the first to begin. Bronson & Weston's mill opened April 30th; Perley & Patte, and Booth's on May 4th. Young's mill opened up on April 29th. Mr. Eddy is as yet working only one saw. His others will start by the close of May.

SERIOUS damage has been occasioned at Laprairie, Three Rivers, and other places in the lower St. Lawrence, by the water rising. At Three Rivers on April 27th, the water was seven inches higher than last year. The booms in Nicolet River broke on Saturday, and about 20,000 logs belonging to Messrs. Hall Bros. & Co., of Quebec, Francis McCaffrey, Nicolet, and others, were lost. At 8 a. m. the Lake St. Peter ice commenced to pass down. It was three feet in thickness. A house on the opposite side of the river was carried away.

THE New Brunswick saw mills are, according to the St. John *Globe* of April 25th, undecided when to begin sawing, because the arrival of logs is uncertain. Matters look just now favorable for stream driving, and the operators are securing the services of large crews of men. A small quantity of logs remaining from last season has enabled some of the mills to make an early start. The mill of Millar & Woodman, at Mosquito Cove, has been sawing about five weeks. About two weeks ago the mill of Messrs. S. T. King & Son resumed work. That of George Barnhill, at Union Point, ran for a short time, but having used up what stock there was on hand is again idle. Cushing's mill, at Union Point, has been running all winter and is sawing yet. The mill of Messrs. Hayford & Stetson, in Carleton, has been working during the winter. The mills of Messrs. Hilyard Bros., Randolph & Baker, Charles Hamilton, W. H. Murray, Warner & Purves, the old Rankine mills, Kirk & Daniel, Robt. Gregory, and the Sutton mills at Millidgeville and South Bay, are waiting to start.

THE Chignecto *Post* has a list of persons who have got out logs in Westmorland county, N.B. this season. It contains sixteen persons of firms representing 105,500 logs. In Cumberland county 27,750 logs were got out by some fifteen parties, besides which, says the *Post*, Kelley Bros. have got out 2,000,000 feet, Prescott, Gillespie & Co., at Shulee, 3,000,000 ft., White of Apple River, 4,000,000 ft., M. L. Tucker at Southampton 750,000 ft., Fillmore, at River Herbert, 1,500,000 ft., B. Young & Son at same place 3,000,000 ft. At Ramshead River, Cumberland, 2,000,000 feet of logs have been got out by Messrs. Farnworth & Jardine. Mr. Alex. Gibson is the shipper. E. I. White, of Sand River, got out about 4,000,000 feet of logs, piling, spars, &c., and expects to saw 1,500 feet lumber. At West Brook mills, Mr. Ben. Young has 2,000,000 feet of logs one, and at Newville 3,000,000 feet. The Killam mill has about 2,000,000 feet. A. Laudels and the Christies will saw a million or more of deals and boards.

"The leprous distilment, whose effect
Holds such an enmity with blood of man,
That, swift as quicksilver, it courses through
The nature gates and alleys of the body,"
and causes the skin to become "barked about," most lazarlike, with vile and loathsome crustie Such are the effects of diseased and morbid but the only antidote for which is to cleanse and regulate the liver—an office admirably performed by Dr. Pierre's "Golden Medical Discovery."

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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L

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

MAY 9.—Shipments to Oswego from our docks here are now fairly active. The principal shippers at present are Messrs. Christie, Kerr & Co., of this city and Rathbun & Son, of Deseronto. The writer noticed some splendid lumber being loaded on vessels by the latter firm, all clear and picks. The agent employed by this firm is a thorough inspector of lumber, some say, who have sold to him, slightly too much so, at all events he holds nearly all the good lumber held over here during the winter and spring months.

The lumber now being placed on the local market is far from being dry, so that in order to have lumber fit for immediate use, consumers will have to resort to the use of their dry kilns, of which most of the factories here have one or more in connection with their establishments.

Dealers have been much harassed by the R. R. companies lately, in the matter of weighing lumber, and contentment will not come until the companies adopt the system of carrying by the thousand feet. The G. T. R. Company have tried rather a novel plan latterly. Their agent at Midland requires the shipper to give him the quantity on the car, and then estimates the load at 2,700 pounds per 1,000 ft. of lumber, so that some shippers are enabled to get down half dry lumber as cheaply as the man whose lumber is thoroughly dry. To take a fair view of the whole question, I think that there should not be any complaints as to carrying by weight, providing the tariff is a fair and equitable one, and that the entire load be carried at the same rate. This the G. T. and C. P. roads carry out in all cases, but the N. & N. W. tries to take undue advantage of their customers by not furnishing any means to weigh the load at point of shipment, and then charging 4th class rates for all the excess over 24,000 pounds weight, which method of computation means more than double freight on the excess portion of the load. Of course all do not pay this charge, not being quite green enough in the business to accede to such demands, but, doubtless, there are many who grumble first and pay afterwards, not being thoroughly up to the laws and regulations made and provided in such [illegible].

The retail yards in the most westerly portion of our city complain of dull times, others, in the centre and easterly portions, say they are full, although complaints of the scarcity of money are general. Car load lots pass off readily, more especially if comprised of 1 in. dressing and 1½ in. cut up. 2x4 scantling and joisting 18 to 22 feet long, are also in good demand. It is rarely a car load of the latter has to be piled off for want of a purchaser. Figures for short bill stuff are not firm at more than $11.00 per M, by car load.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| ound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

MAY 9.—We have no change of any importance to note in this market which is still dull although a good deal inquiry exists, which makes dealers very hopeful for the future. All desirable goods maintain their value, and stocks of all descriptions are pretty full, but now that navigation is completely open it is expected that a good deal will be moved. Our quotations are unchanged with the exception of laths which are now quoted at $1.60. The following are now the prices ex yard:

| | |
|---|---|
| Pine, 1st quality, M | $35 00@40 00 |
| P ne, 2nd " M | 22 00@24 00 |
| Pine, shipping culls, M | 14 00@16 00 |
| Pine, 4th quality deals, M | 10 00@12 00 |
| Pine, mill culls, M | 7 00@ 9 00 |
| Spruce, M | 10 00@13 00 |
| Hemlock, M | 9 00@10 00 |
| Ash, run of log culls out, M | 20 00@25 00 |
| Bass, " " M | 12 00@18 00 |
| Oak, M | 40 00@50 00 |
| Walnut M | 60 00 100 00 |
| Cherry, M | 60 00@80 00 |
| Butternut, M | 25 00@35 00 |
| Birch, M | 20 00@25 00 |
| Hard Maple, M | 25 00@35 00 |
| Lath, M | 1 60@ 0 00 |
| Shingles, 1st, M | 3 00@ 0 00 |
| Shingles, 2nd, M | 2 50@ 0 00 |

SHIPPING.

Navigation is now fairly open from the sea to the the lakes and yesterday two ocean steamers arrived in port. Barges are passing up the canal and some are loading for this port at Ottawa, so that in about another week things will be livelier. We hear of no change in the rates of freight given in our last.

CORDWOOD.

There has been little demand except in a retail way and the market is overstocked for wholesale dealers, while the opening of navigation is likely to help to make it more so. We quote wholesale prices ex cartage at the wharves unchanged as under:

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## WINNIPEG.

The *Commercial* of May 5th says:—As the season advances disappointments become more numerous in the lumber trade, and it is very probable, that many contracts contemplated early in the season will not be carried out this summer, and some will not be touched until the whole western troubles are settled. The business now being done is of a scattered character, and promises to be anything but a prosperous one this season.

## CHICAGO.

THE CARGO MARKET.

The *Northwestern Lumberman* of May 9th says:—During the week ending on Wednesday, 94 cargoes of lumber and shingles arrived at this port. Last year during the week that ended May 7th, 198 cargoes arrived, or 104 more than put in an appearance within the week just ended. The smallness of the number of cargoes arriving now, as compared to a corresponding time last year, is worthy of note. Of the lumber coming, only a few cargoes stop on the market, the majority having been purchased over the lake, or of commission men to arrive. Such lumber goes to the yards of the heavier shippers who are obliged to keep up their stocks, and is partly dry stock from the piles carried over the winter at the mills.

On Monday there was a fleet of 12 to 15 vessels, and on Wednesday morning there was a considerable fleet. Most of the stuff offered has been green piece stuff. It is evident that the dry lumber over the lake, of which we have heard so much, is being taken care of by the larger yards, whose stocks were broken up seriously by the March and April trade.

The green piece stuff sold on the market, where sales have been reported, has changed hand at $8.50 a thonsand. One house reports sales of four cargoes at that price. A load of half dry stuff was sold by another house at $9, a large proportion being Norway. Dry, all soft dimension is held over the lake at $10 a thousand delivered here, but noes not come forward liberally at that price. The half dry stuff at the mills is selling at $8.50 to $9.00, according to quality, run to sizes, and proportion of Norway in it. The statement has been current for some time that the stock of piece stuff held over by the Ford River Lumber Company was all sold to arrive at $10 a thousand; one lot of soft pine is reported as held at Ludington at $10.25.

Last year at this time short, green dimension was selling at $9 to $9.50, and No. 2 boards and strips at $11 to $13. It will be seen that prices this spring are 50 cents to $1 a thousand lower than they were last year at a corresponding time.

Not enough inch lumber has yet been offered on the market to really establish prices. One cargo medium stock was held on Wednesday at $13.50, which was said to be green. Another deck load remained unsold because the holder and the party offering to buy differed in their views.

Few shingles have arrived, the condition in this respect being the reverse of what it was last spring. A load of Muskegon standards sold at $2. Sales of Boyd & Akeley stock, to arrive, have been made at $2.50 a thousand, and Muskegon brands have been sold at $1.95. The market price of standard shingles here ranges from $1.90 to $2.05.

The commission men say that the yard dealers and the manufacturers in Michigan are apart in views as to prices. The yard merchants are indifferent to buying lumber, and the mill men are determined to hold the bottom in the market if they have to hold all their lumber for a time to do it. On account of this difference of view and purpose the commission men do not expect a very active market immediately. The present dull state of trade at the yards is tending to a slow cargo market.

Lake freights sympathize with the market. Charters are made from Muskegon and Grand Haven, by steam, at $1.22½ at thousand; from White Lake, at $1.25 by steam, and $1.37½ by sail; from Ludington, at $1.50; from Manistee, at $1.62½, and Menominee $1.50 for dry lumber.

AT THE YARDS.

A degree of quietude has settled upon the yard trade since May 1. One can now indorse the statement of the dealers that trade is exceedingly dull. The trains being daily pulled out are unusually few and light, and but little waggon traffic is prevailing. The planing mills are not crowded with work, and there is an absence of loaded waggons standing in front of them. The telephone calls are less frequent than they were in April. In fact there seems to have been a sudden halt in the demand, which must be accounted for in some way.

A canvass of the price list, that has stood unaltered since February, among the yards, develops no heavy average cut below the figures named in the list, excepting in the higher grades, several items of which are seriously mangled. The cutting on dimension and common lumber is mainly on special lots that happen to be in oversupply in certain yards, or in stocks that are being forced off for removal or closing up of business. This latter cause for cutting is now about over. While that was going on all attempts towards steady values would have been futile.

Receipts of lumber, shingles, etc., from Jan. 1st to May 7th as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 30,310,000 | 5,582,000 |
| 1884 | 57,340,000 | 32,350,000 |

FROM JANUARY JAN. 1, 1885, TO MAY 7, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 99,827,000 | 22,343,000 |
| 1884 | 208,244,000 | 74,189,000 |
| Decrease | 108,417,000 | 51,846,000 |

STOCK ON HAND APRIL. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 438,442,084 | 370,461,916 |
| Shingles | 223,422,800 | 270,041,250 |
| Lath | 35,073,175 | 38,582,546 |
| Pickets | 1,865,742 | 1,169,586 |
| Cedar posts | 167,674 | 221,223 |

LAKE RECEIPTS FROM JAN. 1 TO MAY 7.

| | |
|---|---|
| Lumber | 6,570,000 |
| Shingles | 1,200,000 |
| Lath | 24,500 |
| Wood, cords | 920 |
| Posts | 87,425 |
| Railroad ties | 14,000 |
| Slabs, cords | 400 |
| Poles | 1,600 |
| Bark, cords | 150 |

FREIGHT RATES TO EASTERN POINTS.

In effect from Nov. 13th, 1884, to March 31st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

Chicago to—

| | |
|---|---|
| New York and common points, per 100 pounds | 30c. |
| Albany | 28c. |
| Boston and common points | 36c. |
| Philadelphia | 28c. |
| Baltimore | 27c. |
| Washington | 27c. |
| Buffalo and Pittsburgh | 17½c. |
| Erie, Pa | 17½c. |
| Dunkirk, N. Y | 17½c. |
| Troy | 28c. |
| Shenectady | 28c. |
| Wheeling | 17½c. |

## BOSTON.

The *Journal of Commerce* of May 9th says: Business is moving rather quietly as a general rule. Spruce, however, is in active demand at firmer prices, with large orders being placed. Pine is quiet and about the same as of late. Southern pine about holds its own. Choice walnut and cherry find a good call at firm prices. Ash remains very quiet.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

Navigation both lake and canal is now fairly open. Boats are clearing to-day for Albany and New York. Lake rates from Port Hope and Trenton, 80 to 85 cents; canal freight rates to Albany, $1.65, to New York $2.15. Quotations remain about the same, though there is a better demand for dry stock, and sales have increased since our last. Shingles are dull and lower.

| | |
|---|---|
| Three uppers | $44 00@46 00 |
| Picking | 34 00@36 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 4 00@ 4 55 |
| Cedar | 3 00@ 3 50 |
| Lath, No 1 | 2 00@ 2 20 |
| No 2 | 1 75@ 2 00 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@17 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 23 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@44 00 |
| Pine, 1¼-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, M | 100 @120 00 |
| Black walnut, 4 inch | 80 00@90 00 |
| Black walnut, 4 inch | 00 00@85 00 |
| Scaymore, 1-inch | 30 00@32 00 |
| Scaymore, 4-inch | 23 00@25 00 |
| White wood, 1-inch and thicker | 38 00@45 00 |
| White wood, 4-inch | 30 00@32 00 |
| Ash, good, M | 40 00@43 00 |
| Ash, second quality, M | 25 00@30 00 |
| Cherry, good, M | 60 00@65 00 |
| Cherry, common, M | 25 00@30 00 |
| Oak, good, M | 40 00@43 00 |
| Oak, second quality, M | 20 00@25 00 |
| Basswood, M | 25 00@30 00 |
| Hickory, M | 40 00@40 00 |
| Maple, Canada, M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, M | 38 00@40 00 |
| Shingles, shaved, pine, M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 00@ 4 00 |
| " clear, " | 0 00@ 3 50 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LONDON.

The *Timber Trades Journal* of May 2nd says:—Messrs. Churchill & Sim's sale was marked by an unusual degree of animation, and it was evident from the disposition of those

present to buy at anything like a curent priec that values had a decidedly upward tendency.

It is not often that we have seen so large a proportion of reserved goods realizing their limit, which was, of course, entirely due to the expectation that war would advance prices generally. About three pence a square was put down as the advance on flooring since the last sale, but this, we should say, is well within the mark. Cheap bargains are still to be had, and there are yet many in the trade, both buyers and sellers, who are strong believers in the present crisis terminating with a peaceful result, and buyers of this way of thinking will of course have nothing to do with an unsettled market.

There is no getting away from the fact that prices are still moderate, when taken in connection with the knowledge that values would be raised £2 to £3 a standard directly war was declared. Stocks, though full ones in London, are not abnormally so, and as far as the shipping ports are concerned we have no reason to sup pose that stocks there are likely to be at all oppressive, even should the political question resolve itself into one of peace between this country and Russia.

We noticed there was some Columbian bright pine in the sale, which, we believe, was shipped as a sample; and judging by the price obtained for them, the experiment is likely to be repeated. £28 15s. for broads and £25 for regulars seem moderate enough if they class anything like Quebec, but their merits are not yet sufficiently known to regulate the price. After all it resolves itself into a question of f.o.b. cost and freight. The price to be paid, in the first instance, is the great thing that rules the value here.

Quebec pine was represented in Thursday's sale by several parcels of quality; one little lot of 3x7 to 13 feet changed hands at £24 which we consider well sold. Little broken parcels of this character form no reliable test of the market, and may go £2 or £3 either below or above the current rates without having any influence one way or the other.

The room was crowded throughout the proceedings, but bidding was not always brisk—for instance a lot of 1st bright Quebec boards started at £6, hung fire for some time at £8, though eventually knocked down at £16 15s. It was apparent that there was no general feeling of security amongst purchasers, that the rise in prices would be permanent, and they considered it was just as well to have kept within the mark, and let others take the chance of a further advance.

## LIVERPOOL.

The *Timber Trades Journal* of May 2nd says:—The more seasonable weather we have enjoyed during the past week or two seems to have stimulated trade to some extent, for there are evidently more orders in the market than has been the case for some time past. The carriers' wharves and railway depots show increased signs of liveliness, whilst with building operations in full swing the local consumption seems more prominent. At the same time prices do not advance here at the same rate they are doing at various outports, where, owing to the increase in the rate of freights now demanded, a corresponding price has been secured for spruce deals and pitch pine timber.

At the same time the market here is exhibiting a slightly firmer tone for these articles, as is shown by the results of the recent auction sales; yet still they are below paying rates, even with the recent low rates of freight.

Up to the present time the market has not been affected by the critical condition of political affairs, though no doubt those who have made contracts for the season's supply of Russian goods from the White Sea will have an uneasy time until they get their goods safely away from the ports of shipment.

We have not heard of any war risks having been taken on timber laden vessels, most of the vessels engaged being, in the event of war breaking out, registered in probably neutral bottoms.

The work of fitting out the armed cruisers is being proceeded with, and in addition to the recent purchase of several powerful twin screw steam tugs from this port it is said two others have been inspected during the week with a view either to purchase or employment by the Government.

The import during the last week has been larger and more deversified than usual, a cargo of East Indian teak and one of greenheart being most prominent amongst the new arrivals. The other cargoes consist principally of pitch pine and Norwegian flooring.

## GLASGOW.

The *Timber Trades Jounal* of May 2nd says:—The Clyde shipbuilding returns for the past month show that there have been thirty-one vessels launched, aggregate tonnage 21,101 tons; for the corresponding month last year the launches were 25 vessels, 23,982 tons. Orders booked during the past month, including the Government contracts, are stated to amount to between 14,000 and 15,000 tons.

A cargo of Mexican mahogany and cedar, is advertised by Messrs. William Connal & Co., to be exposed at Queen's Dock, Glasgow, on 5th inst.

Arrivals to note during the past week have been important, comprising six cargoes of pitch pine at Greenock (about 5,000 loads), and the imports at Grangemouth have been five cargoes, one from Pensacola and four from Baltic ports (about 2,600 loads).

A public sale took place here on the 29th ult. The chief attraction was a large crop of California redwood. A fair proportion changed hands, most of the lots disposed of being 3 in wood. The greater part of the cargo, however, was withdrawn, the bidding not coming up to what the brokers deemed a satisfactory figure. Of the rest of the catalogue, which comprised a varied assortment of yellow and red pine deals and spruce deals, the lots sold were principally the Dalhousie yellow pine deals, the bulk of the other goods being withdrawn, as offers did not meet the exposers' views. There was a large company, but the bidding was sluggish."

### The Sawdust Nuisance.

A case of great importance to all interested in the navigation of the Ottawa river and also the Chaudiere lumber merchants came up before the Court of Chancery yesterday, Vice-Chancellor Proudfoot presiding. Mr. Ratte, boat builder of the Queen's wharf, entered an action for compensation for damages against Messrs. Perley & Pattee, J. R. Booth, Bronson & Weston, and the Young estate. The amount of compensation is placed at $10,000. Plaintiff claims that he has sustained serious damage from sawdust deposited in the river at the mills owned by defendants. The latter state that for twenty they have enjoyed the privilege of so disposing of their sawdust; they therefore make a general denial and plea of prescription. The case is still unfinished.

## A FUNNY MAN'S FINAL JOKE.

A retired humorist ventured one day into a mill, and while in an unguarded moment he was perpetrating some of his old and shopworn jokes upon an innocent operative he was drawn into some of the ponderous gearing and dreadfully crushed. They combed him out of the machinery after a spell and spread the effects on the floor.

"Who is it? Who is it?" was the anxious inquiry as the crowd gathered around. Nobody knew.

Then the humorist slowly opened his eyes and moved his lips. A sympathizing bystander bent down his ear.

"There is a good reason why nobody recognizes me," the humorist whispered painfully.

"Why is it?" the sympathizing bystander asked.

"Because," the humorist explained, as he saw a chance to steal home, "because I have been travelling in cog."

And then a smile like a summer cloud played for an instant over his features and he was gone. He never spoke again.—*Boston Journal.*

It is reported that Sir Robert Hart, at present holding the position of Inspector General of Chinese Imperial Maritime Customs, has been offered the post of British Minister to China, recently made vacant by the death of Sir Harry Parkes.


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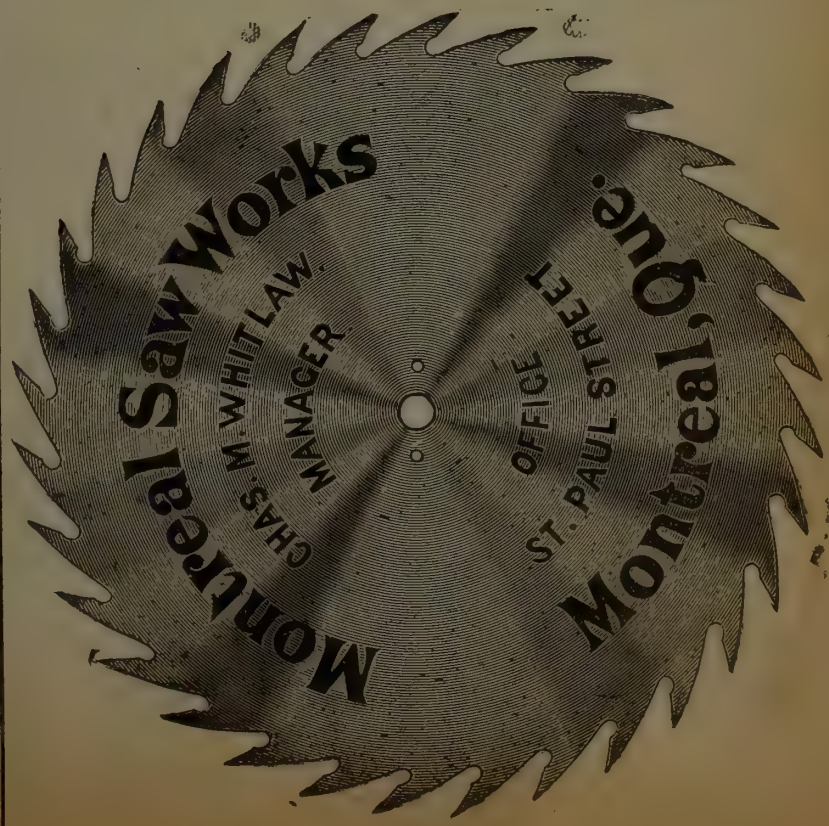
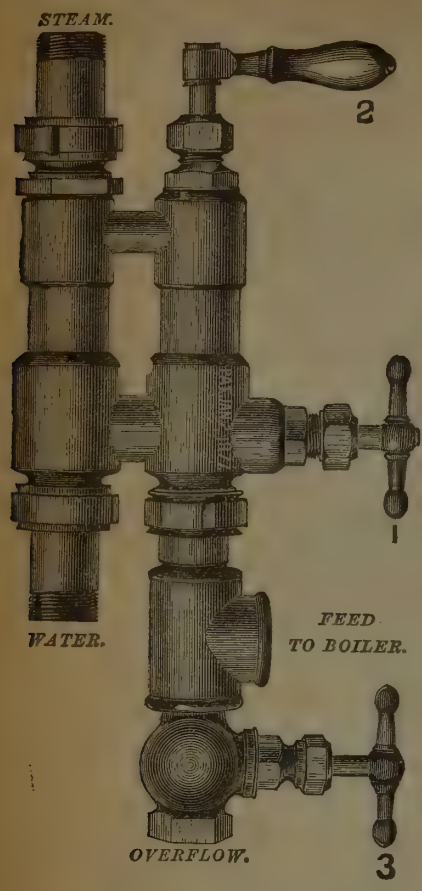



Catalogues and Price Lists furnished on application.

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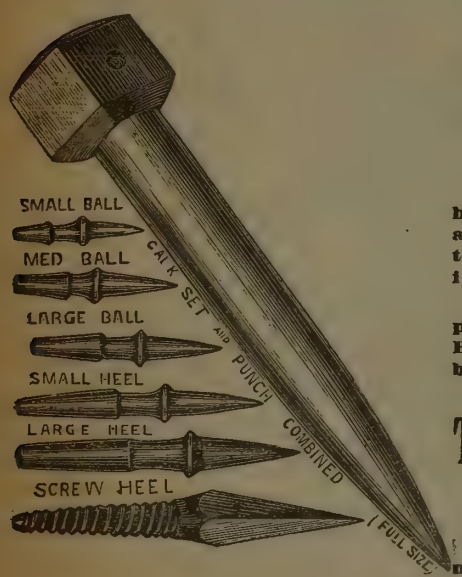


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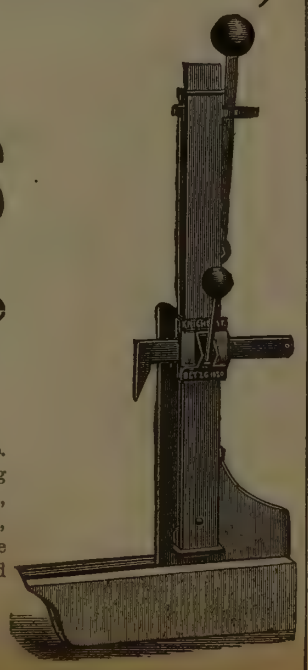

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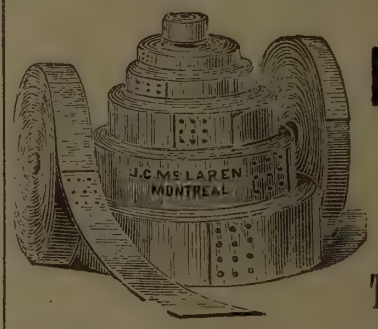


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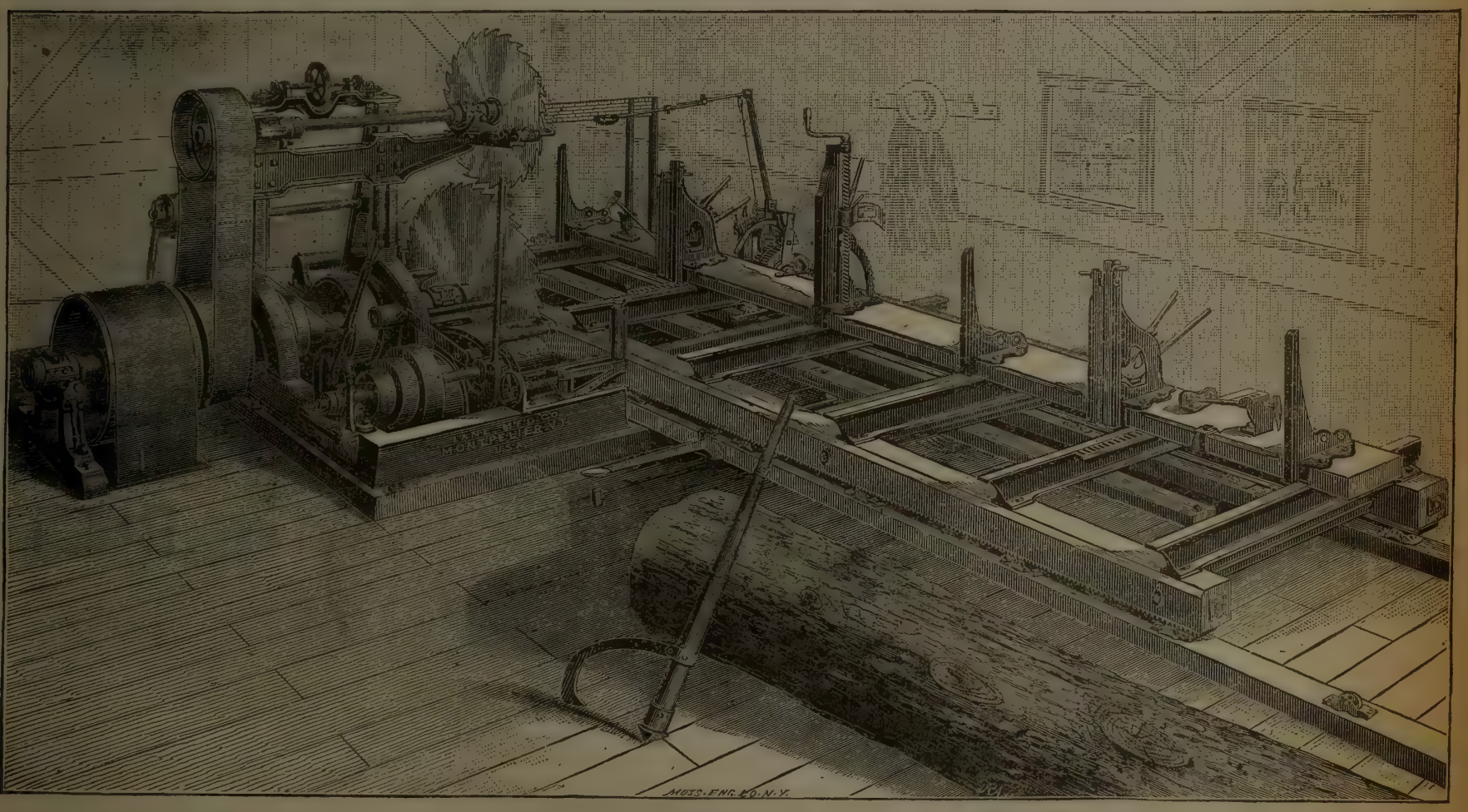

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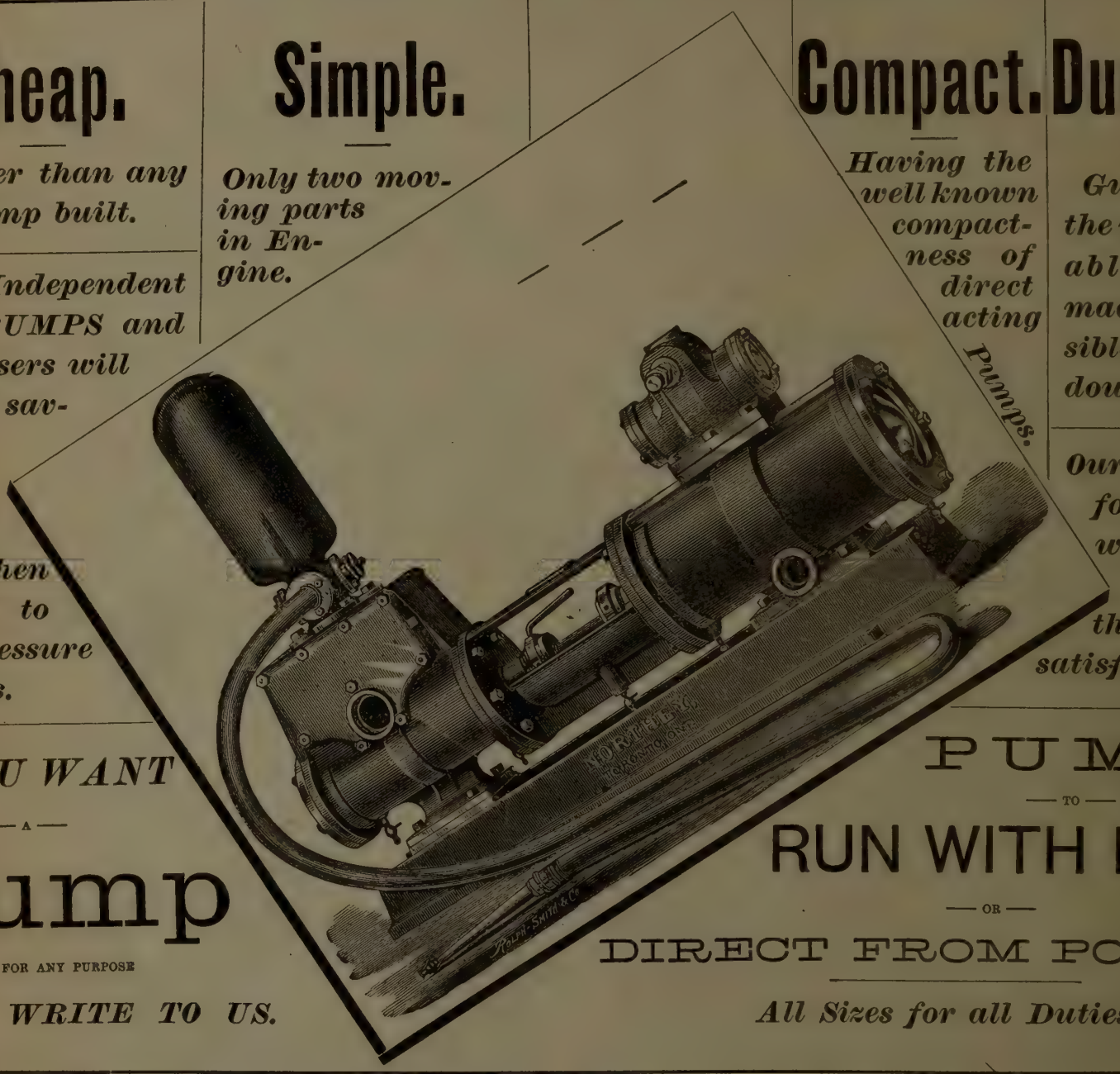


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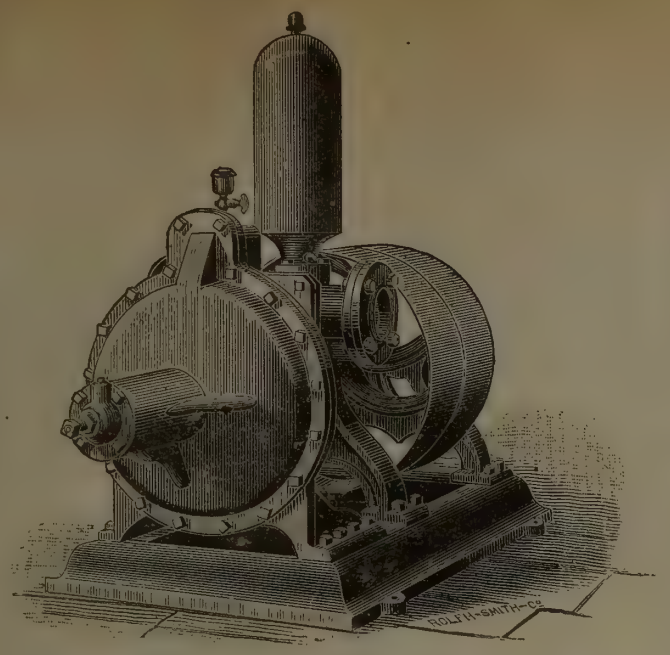

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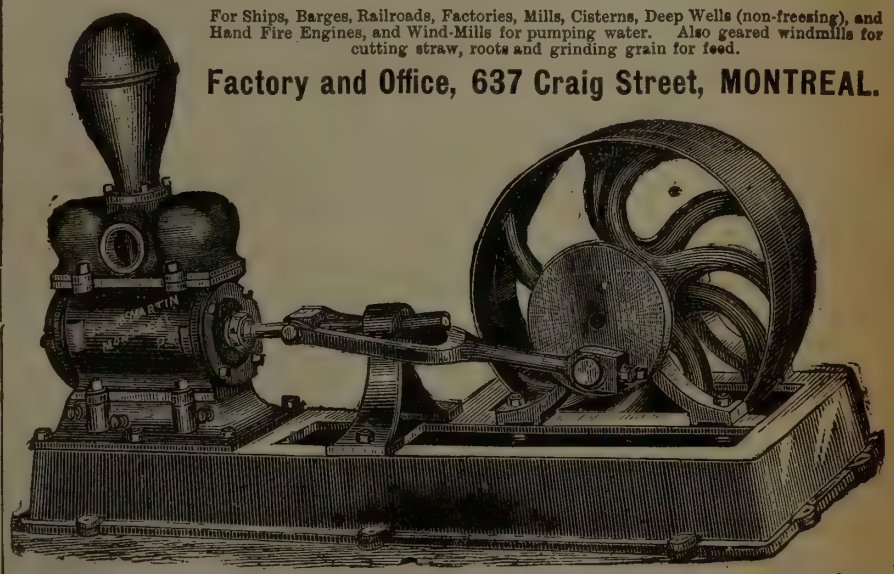

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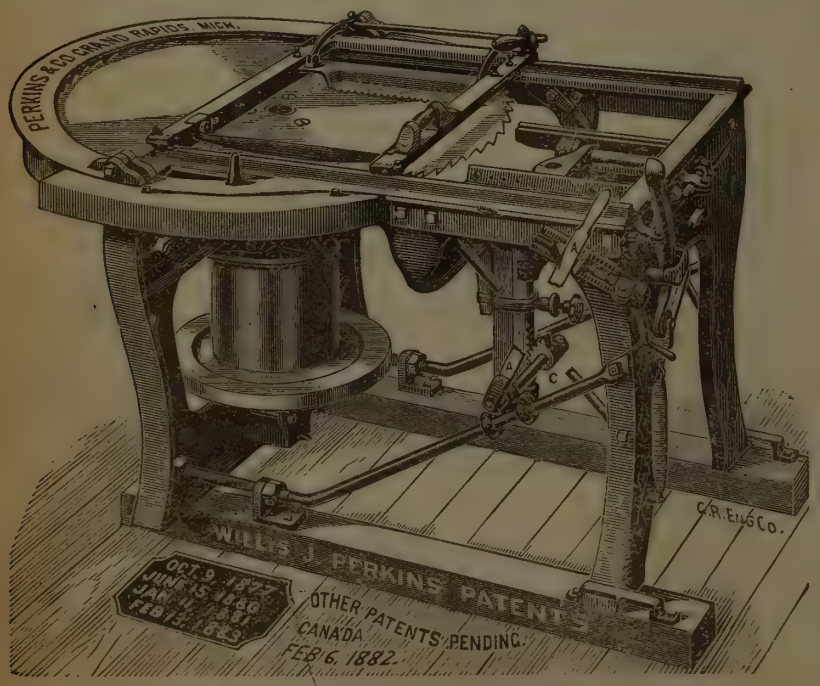
Communication from anyone intending to build Saw Mills solicited.

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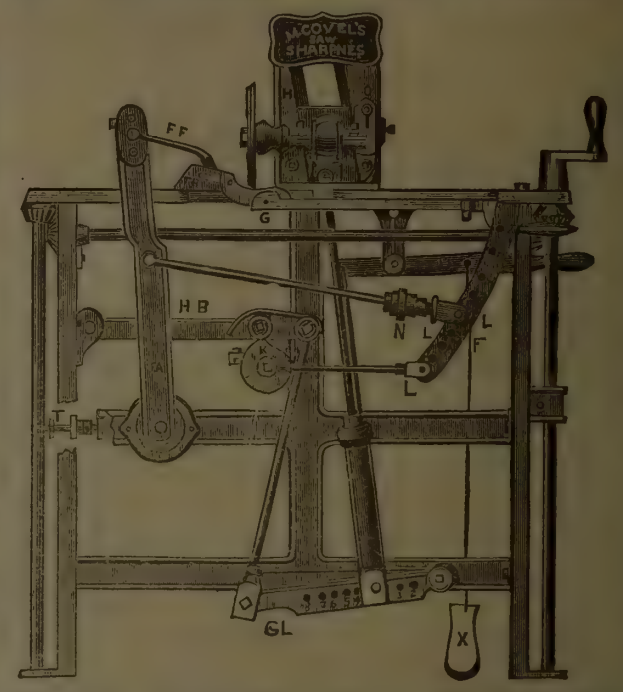


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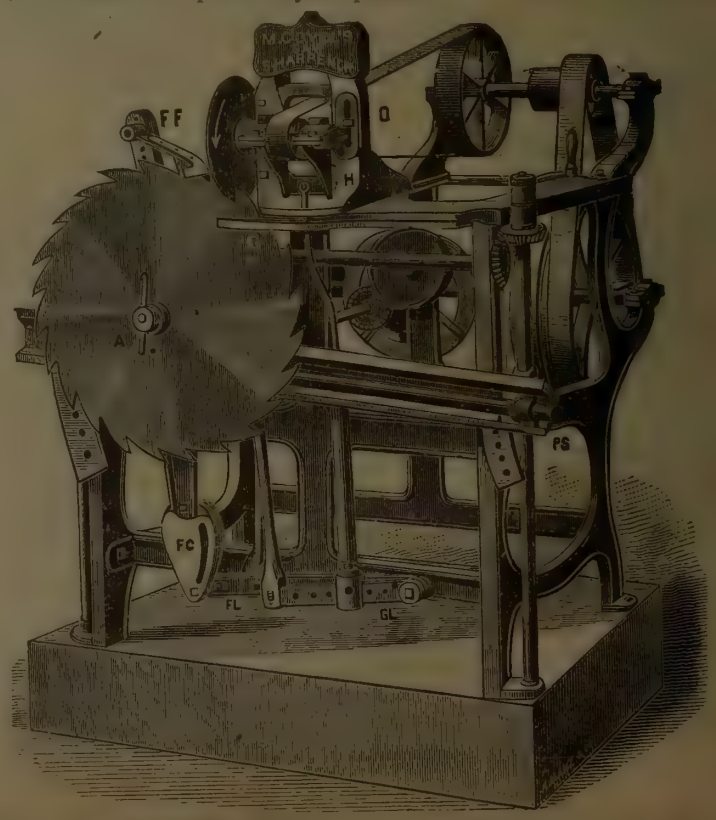


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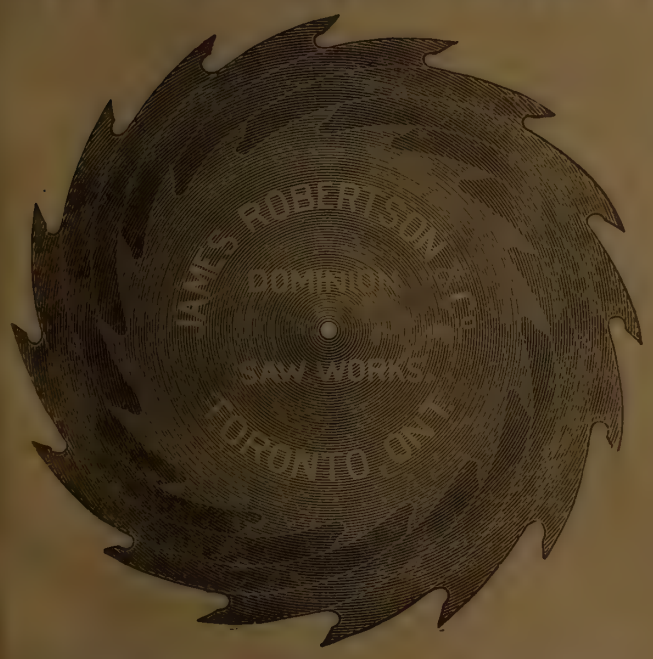


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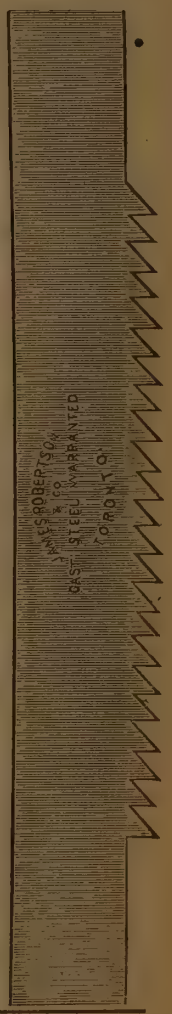


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## OAK TIMBER IN THE UNITED STATES.

The causes that led to the disappearance of the oak trees in England have in the course of time come inso operation in the United States, and within the recollection of persons now living the white oak has almost entirely disappeared as a shipbuilding timber in those states in which that industry has been most actively carried on, according to the census report. In Maine virtually all of the oak accessible from the coast is gone, and only a few small and scattered bodies of it now exist. It is thought that in the western part of the state, in the vicinity of Wells, there is oak enough still left to supply the frames of about 200 vessels ; but it grows largely on property where it is valued for its effect upon the landscape, and cannot be utilized commercially. There are red and other species of oak found in the mountainous and broken parts of Maine ; but they are at present inaccessible. It is believed at Augusta that in the older and better settled portion of the state the amount of timber and wood growing is suffering no material diminution, and it is thought by some that the area in the state devoted to forestry is now larger than it was 20 years ago.

The southern part of New Hampshire was once densely covered with oak, but on account of the excellence of the wood and the good workmanship of the ship builders, all the timber within easy distance of the coast has now disappeared. The northern part of the state is stocked with red oak, intermingled with other timber, and when railroads are buit in sufficent number to cover that region a great deal of timber will come into market.

In Vermont white oak is still in fair supply, and is scattered over large part of the state, more especially in the counties bordering on Lake Champlain. The state has enough oak for her limited use for a long time, and some to spare. Owing to the lack of cheap transportation much of it will not be called for until the supply elsewhere becomes so reduced that the increased price will pay the cost of hauling long distances, and by that time the supply will probably be much lessened by local consumption.

In Massachusetts nearly all the oak is gone, and little comes in the market, except by reason of the division of patriarchal estates and the necessity of paying off legacies, when the oak is cut and sold. Massachusetts oak is of excellent quality.

A small supply of oak is still to be found in the state of Connecticut, but shipbuilding has almost ceased there, and if that industry should ever reach considerable proportions again, the supply would not last more than a few years.

A large part of New Jersey was originally covered with the finest oak, but the clearing of land for cultivation, and the use of oak in the general arts, has nearly removed the timber from the state. For a long period forests of this timber flourished, almost untouched, in the southern part of the state, but the railroads have made it accessible and it is disappearing at a rapid rate. There are but a few places left where oak timber of any size can be cut.

The largest oak forests now existing, growing close upon the Atlantic coast, are on the Peninsula of Delaware and in the states of Maryland and Virginia. The timber originally covered the whole face of the country from the Delaware river to the Chesapeake Bay and beyond, and the trees were so tall that the majority of them would yield 2½ feet square and 60 feet in length without a spot or defect. Delaware and Maryland white oak became famous more than fifty years ago for its lasting quality and general excellence. Serious inroads had already been made into the supply in 1861, and during the war an immense amount of it was cut. At least one half of the face of the country on the Delaware, Maryland and Virginia peninsulas is still covered with a thick growth of oak trees, but nearly all the first growth near navigable waters has been cut. It is supposed that Worcester county, Maryland, has more oak than any other locality at present, as there was very little cut in that county before the railroad was built through it a few years ago ; but since a way of transportation has been opened, woodcutters have been operating there vigorously. Owing to the gradual clearing up of the country the soil has grown drier, or some other change has taken place which seems to affect the quality of the timber, and many of the local builders in Delaware and Maryland who are familiar with the timber resources of their states, believe that the first growth of white oak can never be replaced, and that the destruction of timber now going on is permanent. The demand from here is not limited to the United States, for Delaware and Maryland oak is now sent to Canada and Europe in large quantities.

There is good oak in the Alleghany region south of Pennsylvania extending nearly to Georgia, and though cheap where it stands, the expense of bringing it down for shipment would be considerable.

Along the northern lakes the white oak has disappeared with the same rapidity as on the sea coast. Originally the country was covered with almost one unbroken forest containing oak, pine, hemlock and hardwood from Lake Champlain to the head of Lake Superior ; but in the place of this grand growth of timber there now exists an unbroken series of cleared and cultivated fields and thriving cities for a distance of more than a thousand miles. A few small forests remain, as in the Adirondack region in New York and on the peninsulas of Michigan and Wisconsin, and some oak remains scattered in small quantities all along the states bordering on the lakos, but nine tenths of all the timber is gone. Even in Michigan where the best white oak of the West is found, people are importing timber to some extent from Canada in order to eke out the local supply. The western foaests have been the more severely taxed for oak because that is the only good timber the ship builders on the great lakes have had. They are too far from the southern markets to buy pitch pine, and their white pine is too soft and perishable. This fact, and the general demand for oak timber for houses, cars and other local purposes, and its exportation to the East and to Europe, the clearing up of the country, and the disastrous losses by forest fires have caused the trees to disappear with remarkable rapidity. The wood has become so scarce that prices have risen 100 per cent. in the last 20 years.

The greatest hardwood forests in the country originally grew over the face of the territory extending from Arkansas and Missouri eastward all along both sides of the Ohio river and up the Cumberland, Tennessee and other great branches of the Ohio to the mountains of Virginia, and over the mountains down to the coast. On the northern side of the Ohio the oak has been pretty well cut off, except in scattered lowlands ; but on the southern side of the river, in West Virginia, Tennessee and Western North Carolina, and away west in Missouri and Arkansas, there is an abundance of white oak timber. The quality is not always so good as that of the coast oak, but there is enough timber growing in moist lands to make the wood sufficiently sound for shipbuilding purposes.

Besides the oak used for shipbuilding, a large quantity is cut annually for the repairing and building of wharves and piers in harbors in which shipping is employed, and the trees cut for those purposes are unfortunately the younger one. The forests are thus being stripped of both large and small trees. No opportunity is given them to recuperate, so that while consumption of white oak becomes greater, and increases immensely for many purpose, the circumstances are such that it is almost impossible to entertain the slightest hope of ever replacing the timber when it has finally been cut off.—*Lumber World.*

## WHY REDWOOD DEPRECIATED.

The following reason of the decline of the price of redwood in the San Francisco market is given by the California *Building News* : It is a source of no small inquiry among our people as to what has demoralized the lumber trade during the past six months. As is well known, there existed for some time previous to the late brake in prices, a combination among manufacturers to regulate prices by limiting the supply. The California market will consume annually 150,000,000 feet of redwood lumber. To supply this demand each manufacturer was allowed a certain quota, to be shipped to San Francisco, all the redwood lumber arriving in that port being, to all intents and purposes, sold through the agents of the combination. Last fall it was found that at least 20 per cent more than the market would take would be produced the coming year, and it was proposed to reduce the quota allowed each manufacturer 20 per cent. and thus hold the market at the figure which had prevailed for two years past, giving the mill men good profits and enabling them to employ a larger number of laborers at good wages, thus making business lively in all the lumber regions. Several of the Mendocino lumber manufacturers refused to accede to the 20 per cent. reduction of their quota, and sold their lumber under the combination price, and thus the market was broken. Others in the association said : 'Well, it is now every man for himself ;' and the price has been gradually getting lower and lower, until now redwood lumber is being sold in San Francisco at less than the cost of manufacture and transportation. It is claimed that this state of affairs can be but temporary, and matters will sooner or later come back to a legitimate business basis—with some manufacturers many thousands of dollars out of pocket. The best informed manufacturers of lumber tell us the demand is up to the average, and if it had not been for the circumstances above related, the lumber trade would now be as good as it has been at any time within the last three years. There is a slight dulness at present in the foreign demand for what is know as large, rough, clear, suitable for export. This latter is a branch of the redwood lumber trade, which is supplied almost exclusively by Humboldt county, and renders her manufacturers independent of the home market to a considerable extent. Our lumber dealers feel the effect of the temporary depression in the California market, but take a hopeful view as to a readjustment of prices and better times."

## THE VOYAGEURS.

LONDON, May 15.—That the large contingent of Canadian voyageurs should contain a stray black sheep is not to be wondered at, but it is no less a fact that as an entire the Canadians did excellent work, and won the praise of those with whom they came in contact. Early Derby has received the following very satisfactory despatch from Lord Wolseley :—"Certain unfounded statements having appeared in various papers to the effect that their employment has been attended with unsatisfactory results, I desire to place on record not only my own opinion, but also that of every officer connected with the direction and management of the boat columns, that the services of these voyageurs have been of the greatest possible value, and further that their conduct throughout has been excellent."—*Mail.*

### THE USES OF TIMBER.

We think it will interest, and perchance profit, some of our readers to take a brief glance at the innumerable purposes for which timber is used. Timber merchants themselves are frequently not aware of how various are the hands into which the goods that they dispose of ultimately find their way. It may surprise some to learn that there are over sixty different trades which are daily engaged in using wood of some kind or other, and there are in the United Kingdom no less than five hundred thousand persons who are directly interested in timber, either as users or as dealers. These facts must also possess intense interest for the advertiser, who is thus able to judge of the enormous field that exists for his operations.

At the Jerusalem Subscription Rooms the other day two gentlemen were discussing this subject of the manifold uses of timber, when one of them made the smart observation that "We were rocked in a timber cradle and we shall probably be buried in a timber coffin." The remark certainly, very pointedly, serves to ndicate that timber is with us from the cradle to the grave.

Look where we may, we find timber, either in its natural condition—growing—or made up as some article of furniture, or used in building—ship or house—or in a thousand other shapes. "Timber! timber! everywhere, but not a bit to eat." Stay! Did not an enterprising American once manufacture a considerable quantity of wooden nutmegs, and, who will say that some of these did not find their way into a few mysterious mixtures of the cook, which are served at our tables? There are greater shams about the world than wooden nutmegs, "the manufacturer of which," said a humourous frequenter of the Baltic salerooms, only a few days ago, "did something, at least, towards encouraging business in the timber trade!" "And we want it," laconically responded a Timber King, with whom of late times have not been over bright.

Dull as trade may be at times, we still continue to buy and sell timber. We have not, as yet, discovered any better material than wood out of which to manufacture our chairs, tables, couches, and other articles of domestic furniture, most of our implements of recreation, and most of our children's toys. Wood remains a favorite and will always remain a favorite, notwithstanding the keen rivalry in various respects of other materials. This is not without good reasons. What, for instance, is so pleasant and comfortable as the oak-wainscoted room? What floor is so pleasant to the tread and eye as "Pavodilos?" What ceiling looks so well as the oak-panelled? We may even go much further than this in our praise of wood. The warmest pair of shoes the writer of this article ever possessed were made of wood—shoes which he thoroughly tested by wearing them throughout an entire winter in Sweden.

As a paving material, wood, a number of years ago, shot up to the top of the class, and stays there, little affected by all other comers. If properly laid down it will last longer than any other paving, and moreover, it is easier to repair. Besides, on the score of approaching the noiseless, in connection with the running of traffic, it is unsurpassed.

There is a great deal of nonsense talked nowadays about fire-proof construction. We do not think that we could justly be accused of unfairness if, instead of writing "fire-proof construction," we wrote "*so-called* fire-proof construction," for we have yet to see the building which is really fire-proof. Iron and stone in combination have been used in so-called fire-proof stair cases, and with what result?—that immediately the iron becomes heated by the flames, in case of fire, it expands, forces the stone out of position and down comes the entire erection. So much for two of the principal rivals of timber. It is a common error to suppose that wood really bursts into flame on the slightest provocation by fire. We would strongly advise anyone who differs from us to put our statement to a test. Let him take a piece of solid oak and apply a light to it with a view of setting it on fire—a by no means easy task he will find. If he continues the experiment to iron and stone, he will further find that the same amount of heat which will only scorch the solid oak, will expand the iron and crack the stone; therefore, for safety's sake, in case of fire, a solid oak staircase easily bears away the palm from the staircase of iron and stone, for down goes the latter without note or warning when heated, but the former by its crackling, in the event of fire, gives a fair warning of the approaching danger, and affords you ample time to make your escape.

We are pleased to observe the increasing use of timber in our suburban villa architecture of the day. Both for exterior and interior work it is more used now than it has been, perhaps, for the past thirty or forty years. The revival of the Queen Anne style has undoubtedly given an impetus to the use of wood in domestic architecture. What, we ask, can be made to look prettier than a timber porch to a villa? Wooden mullions to the windows, and weather-boards to the roofs, lend quite an air of comfort and picturesqueness to the house, which inside is, perchance, made to look cosy and warm by the use of wooden chimney-pieces instead of cold by those of marble or stone.

One word more we would like to say to our numerous architectural readers regarding the use of timber. Always, if possible, avoid painting it. Wood is beautiful in its natural grain, and if simply stained or varnished, will, artistically, look much better than it would were it besmeared with color, whether of a pleasing hue or not. Paint is often used to hide inferior woodwork—the general excuse being that it is preservative—but good honest timber should never have its complexion changed by color which prevents our being able to see the beauty of the natural grain of the wood.—*Timber.*

### TRADE MEETING IN CHICAGO.

There was a large attendance at the trade meeting held on Monday forenoon May 11. Mr. James Charnley presided. The discussion was voluminous and animated on the proposition to make a reduction in the figures on the printed list. Mr. S. K. Martin figured conspicuously in the argument for reduction, holding that prices should be cut [down so as to conform more nearly to actual selling values.

Mr. C. A. Street backed up this view with instances showing that lumber had been sold at prices much below the list.

Mr. A. C. Soper thought that the proposed cut was far too sweeping and inconsiderate, and that no such low prices as the others contended for were being made in actual sales. But the predominance of opinion went with the policy of reduction, and the pruning knife was set to work.

Thick clears and selects were cut down from $1 to $4 on a thousand. One inch finishing did not suffer so much, $1 being the extent of reduction on some grades, third clear and B select being left untouched, as was proper. Twelve inch stock boards were reduced $1 a thousand on all but the A grade, though why does not appear clear. A clean sweep of 50 cents to $1 a thousand off 12 inch common boards was made, though dealers have said all along that all 12 inch stock was scarce and firm. The reduction of the prices of box boards appeared unreasonable, when we take into account the constant statement, for three months past, that box boards were in short supply, and firm at list prices, in most instances. After what had already been done it was not surprising that dressed and matched flooring felt the effect of the carving knife to the extent of 50 cents to $1 a thousand, and that rough inch flooring strips were disposed of in like fashion. Beaded ceiling was not cut quite as much. Common and cull boards were reduced 50 cents a thousand, not, apparently, because it was actually necessary, but to show that no guilty lumber should escape. Common and cull fencing got a whack of 50 cents off for seemingly the same reason. Pickets and battens got behind a big pile of piece stuff and escaped until the butcher knife was wiped off and sheathed. In the dimension class that scapegoat of the trade, 2x8, was chipped off 50 cents worth on a thousand, and 2x12, good honest size as it is, and always in demand, was sacrificed to the amount of 50 cents to $1 a thousand, except on 16-foot, which was allowed to go unhurt. The meeting showed its generosity on cull plank, and left that alone too. Shingles were reduced 15 to 20 cents a thousand. The sacrificial work was finished by hitting lath a clip and taking it down from $1.90 to $1.75 a thousand.

While the list, as now printed, and published in the *Lumberman*, is probably nearer the average of selling prices than as it stood before, it seems as if the reductions were too general and did not discriminate sufficiently in cases of reduced and broken assortments. But the trade appears to have lost it appreciation of lumber values, and looks upon the entire commodity as a drug that deserves to be kicked and slashed more than to be treated considerately. Of course it is readily understood that now is the time of the year for the trade to depreciate values, for a new stock is to be laid in, and the manufacturers must be humiliated.—*Northwestern Lumbermen.*

A FULL LINE of all Sizes Single and Double Belting constantly in stock.

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### CUBAN MAHOGANY AND CEDAR.

Speaking of Zaza, Cuba, the *Trade Bureau* says: Next to sugar timber is the leading article of export at this agency. The forests are wild and very extensive, but for want of good roads and easy means of transportation, the timber (mahogany and cedar wood) industry is confined to those lying nearer the coast.

Some persons buy the trees, generally paying from $3 to $4 (a dollar in Spanish is equal to .932 in American money) per tree, according to the number, as it stands, with the right to select a fixed number of trees, according to the dimensions of the forest. Others buy the land and after taking the timber off sell it again. The latter is the cheaper way, as the land at present can be bought at from $50 to $70 per caballeria (equal to about 33⅓ acres), and after taking the timber therefrom it can generally be sold at higher prices, being then convertable into pastures for stock raising.

The timber is cut and hewed at the forest in dimensions suitable for exporting, 12x12 and upwards. The rest of the tree, which is no doubt one-third of it, is thrown away. Most of all the timber thus wasted could no doubt be utilized by the use of saw mills run by water power; or another way, the small branches of the tree could be sold to ship and boat builders for timber and knees, as both mahogany and cedar are excellent for those purposes. The remnants could be made into charcoal, which is used for fuel to a great extent all over the island. In this way, if the business were conducted by experienced parties with sufficient capital, the value of a tree might be worth double what it now is.

The timber thus prepared is conveyed to the seashore by teams of four to six oxen. In former years, when the forests were nearer the coast, the expenses of conveying the timber to the seashore, were much less. Good sized timber tracts are now from 10 to 15 miles in the interior.

At the seashore the timber is sold at prices ranging from $35 to $40 per thousand feet of good size mahogany and cedar, and for mahogany of extra size at prices from $50 to $60 per thousand. The timber is then conveyed by lighters, and rafts towed by lighters, to the port of Trinidad de Cuba, which is 30 miles west of here. All the timber exported from Trinidad is taken from the forests lying east of this port, though within the jurisdiction of the consular agency. It costs $4 per thousand feet to bring it to this port on lighters and rafts, but by arranging the business properly this price can be reduced, as the distance is only from 20 to 50 miles, and the water is very smooth all along the coast almost all the year except September and October.

When the timber reaches this port it is assorted and the ends cut off to meet the requirements of the market for which it is intended, at a cost of, say $2 per thousand, though it is reported that this duty will be considerably reduced in a very short time. Prices in foreign countries have advanced for the last two years on account of the increased use of such wood in different industries, and if enterprising parties would enter into the business here, such exports would be largely increased. Generally the best quality and larger sizes are shipped to England, where they command a higher price.

### Timber Limit Transfer.

It is understood that a large timber limit on the north shore of Lake Nipissing changed hands in Ottawa the other day. The sellers were Messrs. Mossom Boyd & Co., Bobcaygeon, and the purchaser Mr. J. R. Booth of Ottawa. It is said that the price was close in the neighbourhood of $200,000, and that $120,000 was paid down, the balance to be paid in four months. The property was purchased by Mossom Boyd & Co. at the Government sale in Toronto a couple of years ago, and the firm are said to have cleared a snug little fortune on their investment. Mr. Booth has just launched a large steamer on Lake Nipissing, which, it is understood, will be used to tow the logs to the head of the lake.


**"I Feel so Well."**

"I want to thank you for telling me of Dr. Pierce's "Favorite Prescription," writes a lady to her friend. "For a long time I was unfit to attend to the work of my household. I kept about, but I felt thoroughly miserable. I had terrible backaches, and bearing-down sensations across me and was quite weak and discouraged. I sent and got some of the medicine after receiving your letter, and it has cured me. I hardly know myself. I feel so well."

# THE WM. HAMILTON MANUFACTURING CO'Y

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## Manufacturers of Saw Mill and General Machinery.

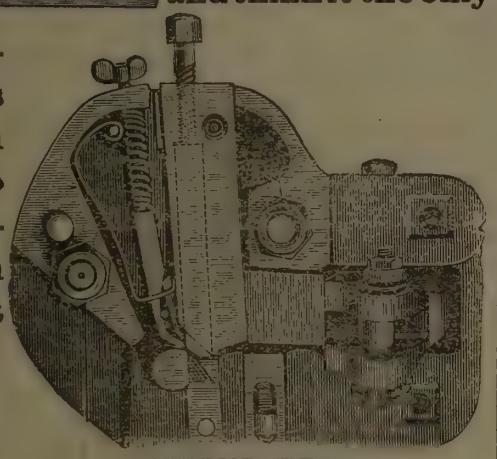
(EXTERIOR VIEW)

### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

*TRY IT!*

**Price $100, Cash 30 days.**



(INTERIOR VIEW)

## Covel's Improved Saw Bench

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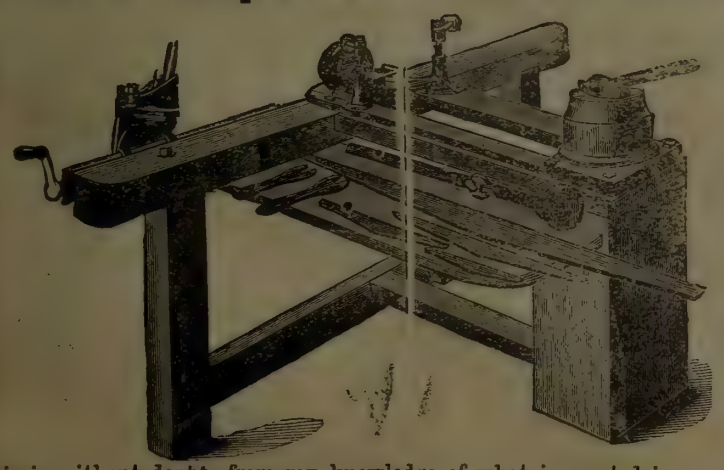
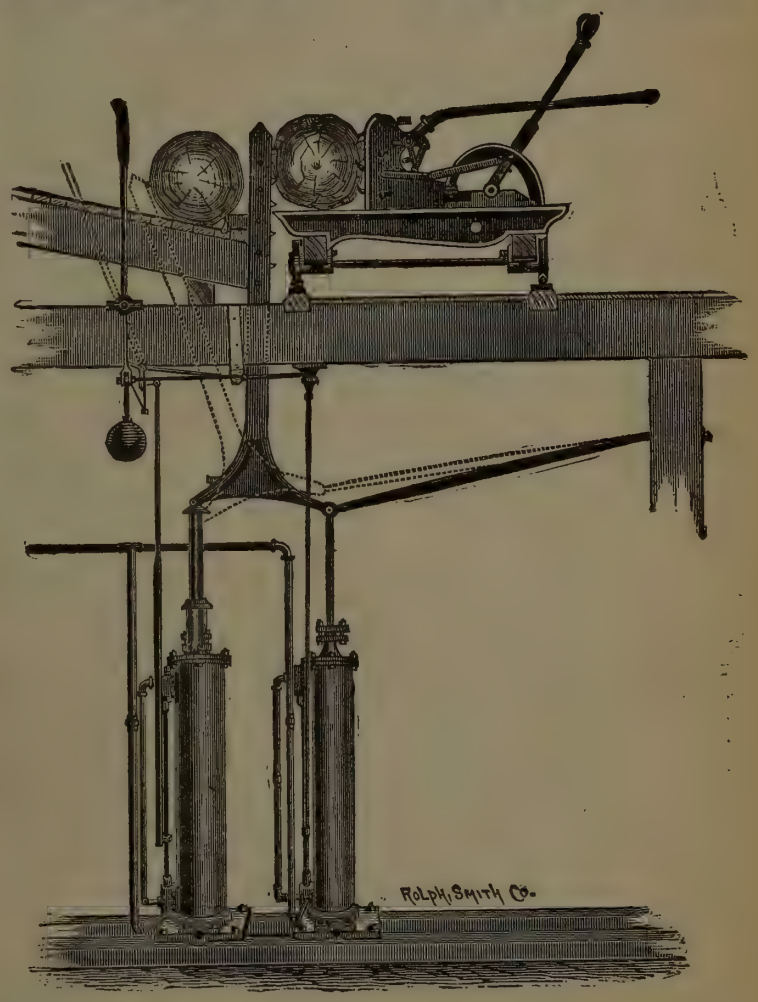


*Price $50, Cash 30 Days.*

This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition for the File Room.

### THE KALAMAZOO

## STEAM "NIGGER"




It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springimg Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

**We Guarantee each Machine in every Particular.**

## THE WATERSHED OF EASTERN ONTARIO.

The following is from Mr. R. W. Phipps' annual forestry report, published by the Ontario Government, and continued from our last issue:

At six o'clock in the morning we reach Mr. W. Mackey's mills at Benton, where, as the light grey mist which shrouds all, gradually disappears, you see first a pretty lake shining below the rising wreaths. A little more and shelving hills appear, covered with yellow bushwood, surrounding it on all sides. And later yet, when clear and bright, the landscape glitters in the autumn sun, we see the destroying fire has wrought terribly here. Far around as the eye can follow, a breadth of many miles is clothed with brushwood, little pines, infant cedars, multitudes of sapling poplars, forming in red and yellow shadings a brilliant contrast to the shining sheet of water in their midst—but, nevertheless, a sad one. For all among these are the stumps, the trunk, the standing spectres of what was once one of the most valuable pine forests in North America. How rich in pine it was may be seen by the limit Mr. Mackey possesses just where the fire stayed its work, a block of ten miles square which he has cut through again and again, and which is yet a grand pine forest, fit to remain, fire permitting, a productive pine forest for ever. Here great rafts of timber have been taken out of small spaces, and saw logs innumerable floated down to the saw mill established near, which is in full operation, the roll and dash of its rushing water striking steadily on the ear, intermingled with, at momentary intervals, the sharp hissing cutting sound of the circular saws as the logs are driven against them. It is a saw mill so complete, well adapted, and thorough for its particular purpose, as to merit description. Here, above the water, stands a young *habitant*, bright in parti-coloured cap and jacket, his pike-pole guides a monster floating log near the spiked chain, it feels the point, it shivers, and seems feebly to resist its fate, as it is dragged up into the mill and deposited on the platform; rolled thence on a movable one, which, bearing three men, passes rapidly back and forth beside a circular saw; it passes up and loses a slab, back again, another is gone, and both run automatically along a platform of rollers outside; the remaining portion is run to another platform, manned likewise, and cut into boards; they pass to a stationary one covered with rollers, where a small saw squares their ends, and at this point they are out of the mill and borne on tramways to the board piles. About 50 men are around the mill. It is the most busy of scenes. All day the logs climb in—all day the boards pass out.

The manager here, Mr. Ryan, thinks that but little can be done, unless at great expense, to clear the forest of rubbish after lumbering. Chopping down the heads, he says, might serve a good purpose where the ground is flat, by keeping the pine foliage damp till it rotted; but on a high locality or hillside they would still be dry. The chips he thinks are safer on the ground than piled.

This mill, as remarked, is in a burnt country, as it is called—or *brule*—of which there are, unfortunately, so many in Canada, and to which, still more unfortunately, each passing year adds, others. It is many miles in extent, and from the mill, which occupies perhaps a central position, we travel eight miles before we reach the woods, on that primitive conveyance called a buckboard—a carriage calculated, of all others, to pass over the roughest roads with the least amount of jolting—though so rough are these roads that amount is very large indeed. All the way the great *brule* spreads out before us—a vast extent of rolling land, brown red with the dying wild summer herbage over many a sloping hill, beautifully contrasted with thick groves of gold leaved aspen, covering many another, themselves again contrasted, every here and there, with bright green pyramids of balsams, and young soft maples of a brilliant crimson hue. Over the prospect, front and rear, right and left, as far as eye can reach, these successive hills stretch away, now and then varied along the river bank by a lofty precipice of granite rock. Everywhere, amid poplar, balsam and underwood, rise high the gaunt dead pines; everywhere their great trunks lie rotting among the bush. The fire which took the forest has not spared the soil. Much of this is burnt so deeply that the life-giving humus has departed; a couple of crops would probably render it barren. The earth, too, is almost paved with large stones, as most of the road painfully witness to our shaken frames. At last we reach where, on a flat, receiving the fertilizing wash of surrounding slayes, a place has been found capable of making a farm for the lumbermen,—three or four large buildings—half barn, half storehouse—as usual, surrounding a large quadrangular courtyard. We enter the large kitchen occupied by two French Canadians, a stout lady busy cooking dinner, and thin husbandman busy waiting for it, and an army of cats and dogs—Newfoundland, spaniels, puppies, and tortoiseshells—all bipeds and quadrupeds, welcoming as much with the kindly manner of the native of Quebec, which even their animals seem to imitate. The feast is spread—masses of pork and potatoes, eggs, bread and butter, and the ubiquitous tea, in a tea pot of two gallons, suggestive of occasional numerous and thirsty guests, glad of refreshment after many an hour of axe handle and handspike. Dinner over, the horses are harnessed, and we soon arrive at the forest itself.

These broad, dark, dense woods form a magnificent specimen of a reproductive pinery. Far above you—a hundred—even sometimes a hundred and fifty feet, on all sides—straight, many branched, upright, tower the dark pine trees. These have been carefully used; the largest hava been culled out—the last cutting here is three years ago—but still it is thick with pines of all sizes, from the half inch sapling to two feet through and more. Most of these are over a foot and a half, and of full height. These now rapidly add to their thickness, and fifteen years will give large trees again.

Every here and there, lie the long stretches of pine chips, four feet, five feet, two feet long, from the stump to the abandoned head of the tree, projecting all its branches—the *chevaux-de-frise* of the forest. These are not now dangerous—the needles—the pine leaves—being rotten. My guide, young Mr. Mackey, of some experience in lumbering is decidedly of opinion, that a few minutes work bestowed on each head at the time of chopping, in the way of cutting down the branches, and allowing them to fall to the ground, would rot the needles much sooner, and render the forest less liable to fire. As to the chips, it appears that to spread them would probably be a great advantage. A separate chip gets grown over and damp, while in piles, left, the upper ones lie dry for years. It is noticeable in this wood that there is much less timber carelessly felled to cut out logs than is observed in some others, and that this is evidently a forest which will, if give the present care, and fire allow, remain a forest. We can go on for hours; throughout the great pine wood mile after mile still you travel in the dense shade of the evergreen branches far above; still, rank on rank, grove after grove, the huge upright trunks stand all around you; still to right and left, front and rear, is one broad receding vista of these great pillar-like trees. Miles on miles, wherever you go, the brown-red carpets of pine leaves lie soft beneath your feet, the great rough-barked trunks rise column-like by your side, and far above, between you and the sky, the intermingling branches with a murmuring cadence the pine forest only knows, sigh mornfully in the breeze. A half mile on, we come to a place where hunters had carelessly dropped fire. It ran for miles, spoiling many a goodly tree, which now, its bark dead and blackened, stands in the path, but luckily rain came in time, otherwise this great woodland might have been but a *brule* now. The stream which rushes along the forest ravine flows through the *brule* we travelled over, down to the mill we have left, and carries there the great flotillas of logs we saw waiting their turn in the stream above the mill. Half way there, a curious instance is visible of the manner in which lumbermen overcome natural obstruction. There was a long stretch of very difficult rapids foaming through a narrow and tortuous bed, the walls on either side high rocky precipices. This pass was dammed the water raised to a great height, and shoot made to one side, and its waters poured along a trough or slide, supported on massive timbers, for twelve hundred feet past the rapid. The slide is of thick plank, three or four feet wide, and two or three deep. The logs of course float on the surface of the raised water behind the dam, are directed into the slide, and pass with lightening rapidity to the calmer water below, thence floating unobstructed to the mill, are sawed there, sent to Brockville, and thence, through an American firm, the world over. Besides these, large rafts, from the same sources, but of squared timber, go to Quebec.

Leaving the woods, we drive back over the long *brule*, bright with the gleam of evening, across its purple, crimson and gold surface—a thing of beauty, but not of use, and reflects that all this hundreds of square miles—when Mr. Mackey came here, was a pine forest as beautiful and valuable as that we have left, and but for the careless use of fire, would have continued so. We see from here, in another limit across the river, a shanty of the kind previously described being erected, and near us, on this side, is the cook, two tents near him, but the whole ground around covered with the bales, boxes and tools, waiting for the cover which the newly roofed house will give. He, in the meantime, tall, young and white-aproned, is busily employed, with his vast pots hung over a glowing fire of birch coals, and, like the mountaineer in Scott,

"Gives us of his Highland cheer."

Not the "hardened flesh of mountain deer," though a bundle of fresh slain partridges lie under his bench, but the salted flesh of the swine, with bread, butter and molasses *ad libitum*.

The next point in our journey in Callendar, one of the headquarters of Booth & Co.'s large lumbering establishments, where we are hospitably received by Mr. Mark Cahill, acting at Callendar for Mr. Booth, and spend the next few days in going over part of their limits.

In travelling next day with Mr. Cahill, he pointed out from the summit of a hill, overlooking a large lake, a great and almost untouched forest, mostly of pine. The scene was grand. Around us lay the grassy field of an old abandoned clearing, backed by the forest from which we had emerged, a gorgeous mass of autumn's richest coloring—high poplar clumps of leaves like waving gold, tall slender pinnacles of spruce, their light green foliage hung with moss, piercing the lofty air, while every here and there against the green and against the gold the soft maple fresh tinted by the last night's frost, shone with an intensity of delicate crimson I have never before seen equalled. The fields sloped downward to the inland lake, a vast circular sheet of little wavelets, their gently breaking edges flashing in the afternoon sun till they faded away in the deep shadows of the dusky wood which bordered the opposite shore. No gleaming colors there, all is sombre; for here we view that sight beyond others magnificent, the waving crests where far extend—right, left, and centre—to the extreme and distant horizon—the dark green billows of the great Canadian pine—an ocean of verdure alternately everywhere gleaming into brightness or deepening into shade, as the wind sweeps by, sending across the lake to our ears that deep, murmuring, softened Æolian chant which dwellers by the pine forests only hear. It is most beautiful, and might remain so. Yet it needs but a match—a careless hunter, a settler pressed by want and anxious to grow what wheat the scanty soil will yield, and this vast extent of millions of dollars' worth of pine—its possibilities of growing millions more—shall be a blackened wilderness of worthless trunks, scattered above a soil burnt into a barrenness well nigh utter. Part of this was in Mr. Booth's limit—part is Government land. It is a wood the forester would love to keep a wood.

In the evening of the same day, examining the state in which a bush was left after most of the logs had been removed, being taken, in this case, both for square timber and logs, we found that the surface was thickly spread, here and there where trees had been squared, with pine chips of all sizes, and close by, scattered in confusion, the heads of the trees, with others, which had been felled to assist in the operation. Undoubtedly, there was much more lying rubbish than elsewhere. But Mr. Cahill was of opinion that the chips on the ground soon grew damp, and would not catch fire from sparks, though a fire once started, they would give it more material. On being asked whether, if the limbs were chopped off the tree heads after each tree was cut down, so as to form a dense pile on the ground, it would not be safer, he doubted it, as even then the top would be dry. It was, as he said, noticeable that rubbish abounded averywhere—dead branches in heaps, dry combustible on the ground in all directions which were ready to catch and carry fire, even in the places where no timber had been got out. To clean up after the lumbermen would be, he said, a great expense, and yet much would be left.

On Monday we left Callender in the small steamer owned by the Booth company, and passed along the shores of a beautiful little lake, called Nosbonsing, its waters bright with sunlight, its banks on either side heavily clothed with forest. Here and there along the banks are the small clearings of settlers, but the soil, light and sandy, seems to promise little for agriculture.

It is so in much of this rugged land. But the scenery is of wonderful beauty. Our course, bending with the winding lake, shows a long succession of these inland waters. Here a dark pine forest fringes the shore, its great trunks deepening into blackness till lost in the heavy gloom within.

"E'en to tell,
It were no easy task, how savage wild
That forest, how robust and rough its growth."

Beyond this, a stretch of hardwood wreathes the water's edge with gold and crimson. While we admire its beauty, it is past, and all the shore is clothed with low dense masses of balsam and cedar. Then again for mlies the bank will show poplar and birch alone. The light and shade, too, in this clear northern air, are often exquisitely contrasted. Near the bank your boat may lay in the dense shadow of a dark forest—a thousand feet off, the sloping sun beams turn the lake to silver, and light in breaks and gleams the great sea of foliage which clothes the opposite mountain, till it is lost in the dark and distant ridge which stands against the sky. In this pristine beauty much of this country should remain. There is perhaps, here and there the soil for a few good farms, but a light poor sandy loam, scant of lime, and scant of humus, seems everywhere around. It will grow, as long as we choose to preserve them, successions of magnificent trees, and, in the fast approaching scarcity of timber, these will form a valuable crop. But for the farmer, settlement on many of these lots would mean a life of penury and unrewarded toil.

But now, over the broad waves, through the purest air, the little boat, brilliant with white and green paint, puffs rapidly along, dark masses of foam tipped water rolling from our prow till five miles are passed, and we land half way to the head of the lake, where a waggon awaits us, its team of black horses quite unmanageable as the steamer nears. Three miles of a ride through a forest of birch, poplar, maple, balsam and spruce, bring us to the lumber depot, a farm of nearly two hundred acres, with many log buildings, great sheds with hundreds of lumber sleighs piled therein, and a comfortable house. Here we dine, and in the afternoon go by waggon to another lake beyond, where two stout oarsmen—French and Irish—row us a couple of miles to a river mouth where are camped a gang improving the dam, their house of logs and log-roofed, with a great opening above for chimney, whence rises the smoke from the fire built in the centre of the floor. It never, we are informed, smokes. Outside is the cooking apparatus—immense pots and frying pans on great burning logs. The dam is examined and closed, with the effect of lowering the creek two feet for five miles, so that a gang of men clearing it out for next spring's drive can blast the stones in the bed. All the way are carefully examined the operations of the lumbermen, and we note again the *debris* left in the forest whence logs have been taken—the long line of chips, the fallen head heavy with projecting branches, the smaller trees felled for logways and for supports while the log is being squared. My lumbering guide

insists that it would be but useless to remove the rubbish, as even the virgin forest is full of lying trees. I do not agree with him. The tree falling here from natural causes is old and rotten; that felled is strong and sound—the numerous heads fill the forest with piles of very inflammable matter. The chips perhaps had better lie; they become damp on the ground while if piled they would dry; but every head of a tree cut should, I consider, have most of its branches "chopped down." They would then lie flatter on the ground, keep damp, and rot the sooner. This would cost but little trouble, and would be the next best thing to piling and burning, which would cost much, as, for safety, it would have to be done in winter. We embark again, and row, as evening shadows the lake, across its waters, wild ducks floating unconcernedly near us as we pass. All around a border of dead balsam trees, gaunt and bare, fringe, the shore, and above them rises high a broad embossed ribbon of yellow and red—the birch and maple. The balsams are killed by the dam rising the lake. No clear inland water this—it is dark and brown with iron and copper pyrites; in our wake is a muddy foam. The depot is reached again, and in the morning we again meet the steamer at the rustic landing, and sail on Nosbonsing to its termination, whence a railroad, just built by the Booth company, leads to Lake Nipissing, five miles away. Here we dine—all is hospitality at the lumber camps—and watch the great wooden room, with its numerous pine board tables and benches, filled with a noisy and hungry crowd of French Canadians, Irish, English, and more—all apparently talking and joking in six languages at once. The tables are piled with food—boiled salt pork and beef—fried salt pork,—excellent potatoes, dry and floury, good shanty-made bread, stewed dried apples, molasses, boiled beans—all served in tin pans, and everybody eating out of a tin pan, and drinking strong tea, with sugar, but no milk, out of another. All is clean but all is rough, while the cook, generally French, in white apron, and striped stockings, makes every one as comfortable as he can.

*(To be Continued.)*

## ENCOURAGING.

Reports from Minneapolis are certainly encouraging for the future lumber trade. The advance in prices inaugurated at the recent Minneapolis meeting has tended rather to increase than diminish the volume of trade. It is reported that the shipments from St. Paul and Minneapolis for the week ending May 14th, show an increase of 92 cars showing that lumber is moving with more freedom from Wisconsin points. Prices have pretty generally advanced at other points to correspond with the Minneapolis market, and the lists are pretty faithfully maintained. There are straggling reports of cuts, but the leading firms are sustaining prices, and the feeling is very much better than it has been for some time. The local trade is good in both cities, and the wonder of pretty much all the remainder of the lumber trade, Assortments were never so badly broken up as at the present time, and orders are filled with a great deal of difficulty. The mills are being pretty steadily operated at all points, and on the Mississippi and its tributaries the drives are coming along satisfactorily, but the water on the Chippewa is reported to be falling, and some of the drives are likely to be hung up. A dry season would certainly result in a steady and sharp advance in prices. For the present the Minneapolis list fairly represents the prices being realized by the dealers. The Lumbermen's Exchange decided on the 14th to throw out the grade known as 2nd common in dimension lumber, leaving the two grades common and culls, in accordance with the custom in other markets.—*Lumberman's Gazette.*

## The New Orleans Exposition.

NEW ORLEANS, La., May 19.—The World's exposition will be closed May 31. Ninety-five thousand dollars has been raised to carry the exposition over till November, when it will be reopened. The railways and car companies reaching New Orleans will subscribe $100,000 toward the reopening. The management has paid off fifty per cent. of its indebtedness.

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of May 1885, compared; and also for the 3 months ending April, 1884 and 1885, compared:

MONTH ENDED 30TH APRIL 1885.

| | Quantity. Loads. | Value. £. |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 6,064 | 14,166 |
| Sweden and Norway | 77,839 | 102,518 |
| Germany | 58,381 | 145,770 |
| United States | 21,881 | 69,914 |
| British India | 7,210 | 103,144 |
| British North America | 725 | 2,857 |
| Other Countries | 40,397 | 52,408 |
| Total | 212,447 | 490,777 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 14,032 | 28,742 |
| Sweden and Norway | 105,498 | 225,405 |
| British North America | 3,520 | 8,181 |
| Other Countries | 44,042 | 132,520 |
| Total | 167,092 | 394,848 |
| Staves, (all sizes) | 9,907 | 46,288 |
| Mahogany (tons) | 5,478 | 47,075 |
| Total of Hewn and Sawn | 379,539 | 885,625 |

FOUR MONTHS ENDED 30TH APRIL 1885.

| | | |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 10,152 | 25,453 |
| Sweden and Norway | 153,277 | 208,338 |
| Germany | 75,209 | 182,264 |
| United States | 46,615 | 157,328 |
| British India | 15,635 | 217,585 |
| British North America | 2,077 | 8,187 |
| Other Countries | 141,038 | 185,809 |
| Total | 444,003 | 985,464 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 21,387 | 43,303 |
| Sweden and Norway | 188,126 | 408,107 |
| British North America | 15,726 | 34,214 |
| Other Countries | 102,532 | 316,825 |
| Total | 327,771 | 802,449 |
| Staves (all sizes) | 22,025 | 108,559 |
| Mahogany (tons) | 25,082 | 219,030 |
| Total of Hewn and Sawn | 771,774 | 1,787,913 |

## FATAL LEAP.

NEW YORK, May 19.—This afternoon Prof. Robert E. Odlum, dived off the Brooklyn bridge a distance of 135 feet. to the river below. While the people on the bridge were horrorstruck, reporters, club men and Capt. Boyton with bated breath watched the descent from a tug. Odlum held one hand on his head and held the other out straight to guide him. When within thirty feet of the water his body began to turn. As if realizing his danger Odlum brought down his other hand with a wave-like motion to aid him in recovering his balance. Half a second later with a mighty splash his body struck the the surface on one side and sank out of sight. The tug hurridly pushed forward to the place where the body fell and Capt. Boyton after seeing that life preservers had been thrown out sprang over the side of the boat and waited for the body to rise. Soon he saw the white face of the professor rising from the water and a moment later he was by his side. Seizing a life preserver, he with difficulty placed it beneath the body of the insensible professor. Blood mingled with forth came from the mouth of the daring man. A rowboat was soon pushed within reach, and with considerable difficulty the body of the professor was dragged into the boat. A few minutes later it was transferred to the tug and restoratives administered. After considerable rubbing, the eyes of the sufferer opened. "What kind of a jump did I make?" he whispered. "First class, my boy," responded the captain. "You'll be all right in a little while." The professor immediately relapsed into insensibility. The tug was hurriedly started for shore and just as the pier was reached a shudder passed through the professor's frame and after breathing heavily once or twice his heart stoped beating and death came to his relief.

## Drowned in a Millpond.

LONGFORD MILLS, May 18.—A lad named James Miller, adout fifteen years old, while feeding logs at the large mill of the Longford Mill Company, accidentally slipped off a log into about ten feet of water and was drowned. His body was quickly recovered by the workmen, but life was extinct. His parents reside near Campbellford.

A STEAMER from the "Soo," Mich., to Cheboyan, lately brought down 800 empty beer kegs from one saloon. This would seem to indicate that they floated logs to the mills up there on rivers of beer.—*Northwestern Lumberman.*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BAKING POWDER.
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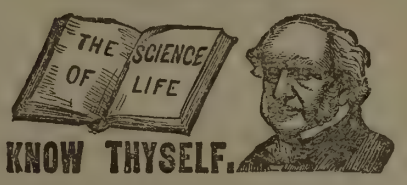

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This book should be read by the young for instruction, and the afflicted for relief. It will benefit all. —*London Lancet.*
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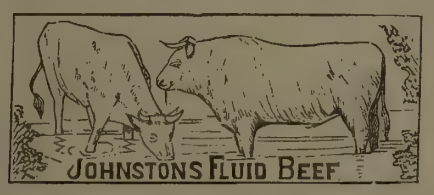

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUH, Ont., JUNE 1, 1885.*


A PORTION of the northern part of Langdale, and four townships of Lincoln county, Wis., have been set apart as Forest county.

UPRIGHT, EMORY & Co., during the past winter, got out 120,000 ties and 4,000 cords of wood at Charlevoix, Mich., and in that vicinity.

OF the 20,000,000 feet of lumber held by Mosher & Fisher, Bay City, Mich., January 1, 15,000,000 feet was sold by May 14th.

EDWARD WALKER, at Kingston, Kent county, N. B., lost his life, recently, by being struck by a slab and knocked from a mill railway.

A YOUNG man was drowned May 18th, while at work sorting logs in the Longford Lumber Company's boom at Longford Mills, Ont.

GOOD Norway strips are scarce in Saginaw valley, and sells at $10 a thousand. Norway bill stuff sells at Bay City at $8 a thousand.

A SHIPMENT of 12,000,000 tooth picks was recently made from a factory at Fond du Lac, Wis., to Chicago, St. Louis and New Orleans.

CEDAR posts and ties to the amount of 68,700 pieces were shipped from Alpena, Mich., during a recent week to Chicago.

MCVITTY, Dr. Henderson, St. Cochrane and Frank White are about to erect a saw mill at Big Hill, 30 miles west of Calgary, N. W. T.

THE Gilmour Company have 160,000 logs stuck at the head of Black Creek. It is reported that they are dry and cannot be moved until next season.

LARGE quantities of square timber are being transported daily by C. P. R. specials from Chalk River and North Bay, Ottawa district, to Papineauville where they are made into rafts for Quebec market.

A LARGER number than usual of eastern men have been at Manistee, Mich., this spring to purchase lumber. One sale of 400,000 feet of selects to go to Worcester, was made.

ABOUT 100,000 feet of lumber and a quantity of slabs and cordwood were burned at Tioga Station, Ont., May 17th. The lumber was owned by Brennan & Son., of Hamilton.

A Bancroft, Hastings county, correspondent says:—Timber driving progresses slowly on these waters. Bronson's drives seem to have moved, but Eddy's large drive of 55,000 pieces of timber and logs has been more fortunate and will be in Madawaska river in a week or so.

A DULUTH business man recently remarked to a newspaper reporter of that place that very few people are aware of the amount of timber wealth in the Vermillion lake region northwest of Duluth. Good judges estimate that there is not far from 1,000,000,000 feet of pine on the lake and its immediate tributaries. Pike river has 300,000,000 to 400,000,000; East Two rivers over 100,000,000; Trout lake 100,000,000 to 150,000,000; Armstrong creek about 75,000,000, and Lake Vermillion itself 300,000,000 to 400,000,000. When the Duluth & Iron Range roads fills in the gap between Two Harbors and Duluth all this lumber will be tributary to a Duluth market and outlet.

## ARBOR DAY.

ALL who are interested in the subject of arboriculture in Canada watched with a feeling akin to anxiety the manner in which the first Arbor Day in Ontario would be observed. The holiday was only extended to villiage and rural schools, but it was a commencement, and the manner in which the holiday was taken advantage of by the rural schools to plant trees and to otherwise beautify the school grounds was very satisfactory. The success of this experiment was such as to warrant the authorities in extending the holiday to all schools next year, and the question of making the day a general holiday might with propriety be considered.

There are two results to be aimed at in setting apart one day in each year as Arbor Day. One is the planting of trees, etc., for beautifying purposes, and the other is to teach the people the practical and monetary value of the forests. Towns and cities are as much interested, if, indeed, they are not more interested, in the first object, than are the people who reside in the country. As regards the practical value of our forests, however, the farmers and owners of the land outside the centres of population are more directly interested. While all sections of the community are interested in the subject there appears to be no reason why Arbor Day should be confined to the village and township schools, and if by making the day a general holiday the people generally could be made to see the many reasons why they should take a more lively interest in the subject of arboriculture, it would be judicious to hereafter make the holiday partake of that character.

## FENELON FALLS.

THE GOVERNMENT BOOMS—Mr, William Kennedy, of Bobcaygeon, who does a great deal of work for the Ontario Government, arrived at the falls on Monday morning, having received instructions to remove and repair the booms at the mouth of the Fenelon river. He tells us that the job will probably be finished by the end of this week.

FINISHED.—The warf mentioned two or three weeks ago as being under construction by the Pulp Mill Co. is now finished and is a very solid structure. It is, as before stated, 60 feet square, and a very much larger steamer than the *Swan* could run up to it when the water is at its lowest. Part of the area between the warf and the shore is yet to be filled in, but enough of it has been made dry and firm to enable the company's teams to go to the warf for the wood that is daily being piled thereon.—*Gazette.*

THE British Admiralty has decided to send out a torpedo plant for the protection of Victoria, B. C. The consignment will be despatched *via* the Canada Pacific railway.

## LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, May 12, 1885, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 925 F. St., N. W., Washington, D. C.:—

317,601.—Lathes, machine for feeding blanks to—J. Welker, jr., Central Falls, R. I.

317,745.—Saw, drag—J. H. Deam, Bluffton, Ind.

317,784.—Saw joining and setting device—J. L. Highbarger, Sharpsburg, Md.

317,698.—Saw tooth, insertible—A. Adsit, Traverse City, Mich.

317,656.—Saw tooth, insertible—E. T. Lippert, Pillsburg, Pa.

317,730.—Wood, preserving wood—E. Z. Collings & C. F. Pike, Camden, N. J. and Philadelphia, Pa.

## STOCKS IN THE DOCKS.

The London *Timber Trades Journal* of May 9th, says:—In the dock stocks we note that there is nothing of an oppressive character in the present proportions of the London supply of the principal north of Europe goods. Stocks of Baltic deals and battens are about equal to what they were a year back, and though battens are somewhat heavier in stock now than they were 12 months since, prepared flooring boards are nearly 400,000 pieces short of last year's supply at this date; pitch pine planks, again, are considerably less now in stock than they were May twelvemonth. Although timber of this description is now 22,904 loads, against 12,362 loads that were in the Surrey Commercial Dock ponds twelve months ago, the quantity arriving shows even a larger preponderance on the side of the present year's supply, considerable quantities having been rafted to the river from the ships' side that were not taken into account at all.

The heavy excess of ponded goods doubtless exercises an unfavorable influence on the value of planks, otherwise we ought to have these latter at a considerable premium at the present time. In Baltic log timber, on the other hand, we have to record a shortage as compared with the stocks of similar description that were in the ponds at corresponding date last year; but the difference though large is not sufficient to counterbalance the excess on southern pine. The present dock supply of ponded timber, coupling the two together, is 36,282 loads, against 29,079 loads that were in stock last year.

Wainscot logs are one of the items that, by comparison, are not heavily represented, being some 1,400 pieces less now than the stocks of May, 1884, which is decidedly favorable to prices. We have not seen so much of this description of timber figuring in the public sales lately. The chances of war with Russia no doubt influenced holders, and doubtless checked first hand transactions in Odessa goods. With peace almost assured, these, like other goods coming within the influence of war, will experience a reaction from the inflated tone of the past three or four weeks.

Stocks of pine and spruce, in the absence of any fresh additions, continue to present the same marked contrast to last year's stocks, and which which the trade have become so accustomed to that it hardly needs referring to. If, as reported, there are so many new vessels now chartered for St. John and Miramichi, this year's summer stock of lower port spruce will be the smallest ever known.

In the old days of sailing ships, with such a state of things existing at the loading places, we could pretty well discount the market for whitewood over here; but in this age of steamers it would be unsafe to reckon to strongly on a short supply. Tonnage, if wanted, could soon be secured, and the stuff shipped at short notice, to come upon the market as an eleventh hour supply, upsetting all previous calculations.

Stocks of birch and walnut are much on the same scale as a year ago. Elm, amongst the ponded goods, is represented by a few hundred loads, but the supply was very small last year. Ash is some 800 loads heavier in stock now than it was at the end of April.

## GLASGOW.

The *Timber Trades Journal* of May 16th says:—Messrs. Malcolm, Carswell & Co. held a public sale of timber and deals at Greenock on 8th inst., prices are noted below.

There have been no auction sales at Glasgow by timber brokers during the week.

A small cargo of Laguna mahogany and cedar is advertised by Messrs. Farnworth & Jardine to be exposed at Queen's dock, Glasgow, on 19th inst.

Early imports of Quebec deals will come to an unusually bare market this season.

From the statement of stock at the end of March last it will be seen that of Quebec yellow pine deals the quantity on hand was only about a third of what was held at corresponding period 1884. Deliveries from Yorkhill yards during the last month (April) amounted to 85,353 deals and planks (Quebec and lower port), against 66,885 pieces in April, 1884.

First quality yellow pine deals are at present especially needed and would command high prices. Apparently, however, the first arrivals per steamer from Quebec will be later than they were last year, as reports state that immense quantities of ice are in the Gulf of St. Lawrence, completely blocking the usual outlet.

Arrivals at Clyde ports during the past week have been light, consisting of a cargo of greenheart and sundry small parcels of oak planks, staves, &c., per steamers. We learn that a cargo of birch timber from Halifax is daily expected. There has been a considerable import of Baltic goods at Grangemouth for the week; 16 vessels representing an aggregate carrying tonnage of 4,310 tons. A Greenock shipbuilding firm it is stated has secured contracts to build six ships, the aggregate tonnage estimated at about 7,000 tons; the prices are understood to be very low.

AUCTION SALES.

On 7th inst., at Greenock, by Messrs. Malcolm, Carswell & Co.:—

| | | |
|---|---|---|
| Quebec waney boardwood— | | Per c. ft. |
| 50 c. ft. avg. per log | | 2s. 1d. |
| 40 | " | 1s. 5½d. |
| Quebec yellow pine— | | |
| 112 c. ft. avg. per log | | 1s. 8d. |
| Quebec elm— | | |
| 40 | " | 2s. 8d. |
| Quebec cherry— | | |
| 21½ c. ft. avg. per log | | 2s. 2d. |
| Quebec oak— | | |
| 55 | " | 2s. 2d. & 2s. 2½d. |
| Michigan 1st pine deals— | | |
| 13 to 15 ft. | 5/24×3 | 2s. 10d. |
| 14 " | 5/15×3 | 2s. 9d |
| Michigan 3rd pine deals— | | |
| 16 to 18 ft. | 12/20×3 | 1s. 3½d. |
| 16 " | 7/10×3 | 1s. 1½d. |
| 14 " | 7/21×3 | 1s. 1d. |
| 13 " | 6/18×3 | 1s. 0½d. |
| 12 " | 6/11×3 | 1s. 0½d. |
| Michigan 4th pine deals— | | |
| 9 to 15 ft. | 6/18×3 | 9½d. |
| Michigan 2nd, 3rd & 4th pine ends— | | |
| 3 to 8 ft. | 8/18×3 | 9½d. |

### Fierce Forest Fires.

EASTON, Pa., May 22.—Mountain fires have been burning for a week north of Stroudsburg, Monroe county, and in the vicinity of Bushkill have devastated a large area. Great damage has been done to the farming and lumber interests. Forest fires are also reported at Bangor and Penn, Argyle, doing considerable damage. The fires on the Blue mountain in the vicinity of Danielsville, Northampton county, partly subdued two weeks ago, have broken out afresh, and are spreading rapidly. The forests are very dry, and a great deal of valuable timber will be destroyed. After sundown the fires resemble a huge torchlight procession.

FOREST fires this year seem to be confined to no section of the country in particular. Pennsylvania, Maine, and New Jersey in the east, have added their quota, as have some states in the west and Northwest, and last week the far off British Columbia comes to the front with her forest cremation, involving a considerable pecuniary loss. The town of Farwell was totally destroyed, railroad property burned, and other damage resulted. The year 1885 will be noted for early forest fires; or at least great destruction before the snow had fairly disappeared from the woods.

### THE LUMBER SUPPLY.

For some time past there has been a good deal of discussion concerning the policy of curtailing the production of lumber, and the general drift of opinion in the trade has been decidedly in favor of such action, for although the lumber trade has not suffered so severely as many other industries during the dull times of the last two years, it is still a fact that for several years past the business has not been returning a satisfactory profit for the capital invested, and the cause of this was obviously the over-production of lumber.

But while most members of the trade were agreed on this point, there were many who believed that over-production would continue in spite of all the arguments urged against it, and some of the very knowing ones even intimated that the very ones who talked most earnestly against over-production had no intention of practicing as they preached. While urging others to restrict their operations, they intended to increase instead of curtailing their own production.

But the latest statistics relating to the lumber situation in the Northwest, as given by the St. Paul *Pioneer Press*, show that the number of those persons who preached the doctrine of curtailment of production to others, but did not apply it to themselves, was very small, or else that the circumstances were strongly against their little game; for, as the following figures show, there has been a very material decrease in the supply of logs now available as compared with that on hand in the spring 1884. Last spring the total production in the five districts of Mississippi, St. Croix, Chippewa, Black and Duluth, amounted to 3,238,500,000. This spring the production is estimated at 2,364,562,000, showing a decrease of 873,938,000 feet. In the Saginaw Valley the log product is about 300,000,000 feet less than that of last year. The stock of logs at the Mississippi mills, of which no estimate is made in this report, is, however, uncommonly large, many mill owners have taken advantage of the favorable condition of the market, and the high water following the Chippewa flood, to get a supply of logs to their mills for the spring sawing.—*Saw Mill Gazette.*

### CANADA PACIFIC CHANGES.

General Superintendent Wm. White of the Eastern and Ontario division Canada Pacific railway, has just issued an official circular announcing the promotion of James Wilson to the position of superintendent of the Ontario division. Mr. Wilson will thus have the superintendence of the line between the terminal points of Owen Sound, Teeswater, St. Thomas and Smith's Falls Junction. The new superintendent was for many years in the service of the Grand Trunk, first as operator, and later as station agent at Ailsa Craig. He was agent of the Toronto, Grey and Bruce railway at the Queen's wharf, and when this line merged into the Canada Pacific he was advanced to the position of master of transport. As assistant superintendent to Mr. White, he retained charge of the Toronto, Gray and Bruce railway section until the opening of the Ontario and Quebec division, when he had the superintendence of of this part of the line in addition to his former charge. That Mr. Wilson's administration has so far been singularly efficient is proved by his advance to the post of superintendent of the Toronto, Grey and Bruce, Ontario and Quebec and Credit Valley sections. J. W. Leonard, assistant superintendent of the Credit Valley railway, has been appointed to the same position over the Ontario division.—*Toronto Telegram.*

### The Voyageurs.

OTTAWA, May 27.—The voyageurs returned by the Hanoverian were banquetted here to-night. Those belonging to Winnipeg leave over the north shore route of the C.P. R. to-morrow night.

### All "Played Out."

"Don't know what ails me lately. Can't eat well,—can't sleep well. Can't work, and don't enjoy doing anything. Ain't really sick and I really ain't well. Feel all kind o' played out, someway." That is what scores of men say every day. If they would take Dr. Pierce's "Golden Medical Discovery" they would soon have no occasion to say it. It purifies the blood, tones up the system and fortifies it against disease. It is a great anti-billous remedy as well.

### SEVENTEEN LIVES LOST.

CINCINNATI, May 21.—The fire at 19 Sixth street this afternoon caused the death of seventeen persons. It was at first thought that only five women who jumped from the fifth story window were killed, but when the fire was subdued so that the firemen could enter the building it was found ten bodies lay in heaps on the fifth floor and one lay on the fourth. There were six who jumped from the windows and were killed, and one man, after saving the lives of two women by letting down a rope from the roof, was himself killed by the burning in two of the same rope before he reached the ground. This was Mr. Sullivan, brother of the proprietor of the printing works. The fire originated by the explosion of a gasoline stove on the second floor. The flames entered the elevator chute, which is next to the stairway, and all chance of escape was cut off. The killed are mostly emyloyes of the dye works occupied a portion of the building. Mary Beantrim, aged 17, of Newport, was killed in leaping from the fifth story; Chas. Braam made an effort to catch her, but the force was too great and she dashed on the pavement at his feet a shapeless corpse. In addition eleven corpses were found inside the building and search is now being prosecuted. The fifth story was completely burned out, but the walls still stand and the floors are not much damaged. The building was occupied by Sullivan & Co's printing works, Orth, Wissell & Co's dye house, the Ledger Postal News company, the Parisian dying and scouring company, J. R. Kingsley's planting works. It was not long until the flames were under control. The mass of telegraph and telephone wires prevented the fireman putting up ladders promptly for the relief of the inmates.

The fatal list now made up is; Anna Bell, aged 48; Dollie and Lizzie Handel, twins, 20 years; Fannie Jones 22; Delia, Katia and Mary Leaban, sisters, 23, 14, and 16 respectively Katie Lowry, 20; Lizzie Meiers, 16: Annie McIntyre, 20: Fannie Norton, 34; Katie and Mary Pitnam, sisters, 22 and 14; John Sullivan, 22; Lillie Wynn, 20.

The injured are: Will Bishope, printer, 23 years of age, crushed and burned, will probably die; Josie Hawkes, broken leg; Emma Pinchback, unconcious, will probably die; Nannie Shepherd, head badly cut.

### BRIDGENORTH

SAW AND SINGLE MILL BURNED.—On Saturday morning, May 22, between the hours of four and five o'clock, a fire broke out in the saw and single mill of Mr. J. H. Brumwell, and the entire building was consumed. It is not known how the fire orginated. The was a quantity of lumber, about two hundred thousand shingles, and other stuff burned also. The loss will be $3,000, of which only about one-third is covered by insurance.

### The Royal Society of Canada.

OTTAWA, May 26.—The fourth annual meeting of the Royal society of Canada opened at 10 o'clock this morning in the railway committee room of the house of commons. Dr. T. Sterry Hunt, president, occupied the chair. Dr. Daniel Wilson, the vice-president, and Mr. J. G. Bourinot, hon. secretary, were in attendance. The honorary president the Marquis of Lansdowne was present in the afternoon and delivered an interesting address on the work being performed by the society.

### Escape of Convicts.

KINGSTON, May 25.—This morning two convicts escaped from the penitentiary. Their names are Robert Spencer and Thomas Buckley. Both the men came from Toronto, the former for two and the latter for three years, and both have served eight months. They were working on the quarry about 200 yards from the prison walls, and at noon when the keeper called the men into line the two named were missing. The escaped men are smart, active young fellows, and up to to-night no trace of them had been found.

IT appears Mr. Henry George secured $2,000 for his recent course of lectures in Scotland on land reform.


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## AUSTRALIA.

The monthly circular of Messrs. Lord & Hughes, dated Melbourne 11th March, says :—

Since the date of our last advices on the 11th ultimo, a moderate amount of business in timber and deals has been done, but we have no improvement in prices of any description of timber to report.

Stocks are large, and arrivals heavy, but business from the yards for consumption continues active.

RED DEALS.—Imports : 1,050 standard, from the Baltic ; 125 standard red pine, from Canada. The arrivals have been —Andrea Wilhelmina, from Skelleftea ; Indefatigable, from Sundswall ; Elizabeth, from Gefle ; and Lake Leeman, from Quebec. Sales by auction have been confined to portions of cargoes ex Border Chief and Wm. Le Lacheur. D O M, 12x4, and 11x4, realising 5d. per foot ; 9x3, 9x4, at 4 11-16d. ; 11x3, at 5 1-16d. ; 9x3, at 4½d. K A B, 9x4, at 5½d. ; 7x2½, at 4⅜d. N A S, 11x4, at 4¼d. ; 9x4, at 4⅜d. ; 11x3, at 4⅜d.

SPRUCE DEALS.— Imports : 5,131 pieces. Arrivals have been—Lake Leeman, from Quebec ; Haroldine and Penobscot, from Boston. Sales publicly have been of 9x3 and 11x3, spruces, ex Antioch, and small parcels of white Baltic deals, 3, 5, 6 and 7 cuts ex Erato and Schwanden.

OREGON TIMBER.— Imports : 2,735,130 feet super. Arrivals : Birchgrove, California, Quickstep, Tranmere, and Fresno. Sales by auction have been cargoes ex Birchgrove, Quickstep, California and Kemijio, at prices ranging from £6 5s. to £5 10s. 6d. per 1,000 feet super.

LUMBER.—Imports : Clear pine, 442,660 feet super ; white pine shelving, 412,688 feet super ; T. and G. Ceiling, 141,144 feet super. Sales publicly have been of various parcels ex Antiock, S. F. Hersey, Abner Coburn, Highlands, and C. D. Bryant, last month's sales being fully maintained. The parcel ex Haroldine is advertised for sale 15th inst.

REDWOOD.—Imports : Nil. The only public sale has been reported of parcel ex Remijio, at £8 15s. to £8 7s. 6d. per 1,000 feet super.

FLOORING AND WEATHERBOARDS.—Imports : 3,203,630 feet lineal, from the Baltic and Great Britain : 50,000 feet lineal from Canada. Arrivals have been Erato, from Christiania ; Arthurstone, from Montrose ; Melanope, from Glasgow ; and Lake Leeman from Quebec. Sales by auction have been ex Java, Botvid, Wilhelm, Ole Moller and Bankville, at following rates :—Red, 6x1⅛, at 11s. ; 6x⅞, at 8s. 4-out weatherboards, 5s. 9d. ; white. 6x1⅛, at 8s. 3d. ; 6x⅞, at 7s. 6d. ; 6x½, at 4s. 11d. and 4s. 10d. ; 4-weatherboards, 5s. 9d. per 100 feet lineal.

KAURI PINE.— Imports : 538,939 feet super. The arrivals have been—Linda Weber and Louise. from Kaipara ; Albert the Good, from Wangaroa ; and Orsen, with portion of cargo ex Robin Hood, wrecked at Hummock Island. Sales by auction have been made of cargoes ex Mary Blair, Linda Weber and Defiance, also of the parcel ex Orsen.

CEDAR.—Imports : 149,200 feet super. The arrivals have been per sundry steamers via Sydney. Sales have been made by auction of various parcels logs and sawn boards.

DOORS.—Imports : Nil.

LATH AND PICKETS.—Imports : Laths, 11,435 bundles ; pickets, 7,120 bundles.

SLATES.—Imports : 336,911 pieces.

PLASTER.—Imports 1,372 barrels.

CEMENT.—Imports : 1,150 barrels. No business has been done auction during the month. Privately Knight, Bevan & Co.'s and Gostling's are quoted at £20 to £18.

GALVANIZED IRON.— Imports : 576 tons. There have been no offerings at auction, and but little has been done privately. Favorite brands are quoted at £20 to £18.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3 ; T. and G. flooring at per 100 feet running ; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 feet super ; Kauri pine and cedar logs at per 100 feet super ; laths, pickets, and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

Don t hawk, and blow, and spit, but use Dr Sage's Catarrh Remedy.

## LOG PRODUCT OF THE SAGINAW RIVER.

Estimates published by us last February, for which we were indebted to a considerable extent to Ed. Cowles, of the Saginaw *Courier*, the log crop for the Saginaw river mills was given as follows :—

| | *Feet.* |
|---|---|
| Tittabawassee and tributaries | 126,800,000 |
| Tobacco and tributaries | 56,300,000 |
| Chippewa and tributaries | 48,350,000 |
| Tittabawassee pine | 11,000,000 |
| Scattering lots | 10,000,000 |
| Total | 252,450,000 |

Past experiences in lumbering shows that estimates made early in the season invariably fall short of the actual output, and while this may be true the present season there is reason to believe the excess over the foregoing estimates will be very small. Those competent to speak by the card state that it will not exceed the published estimates more than 8 per cent. and at the most will not overrun more than 10 per cent., which would make the total product of new logs above the Saginaw about 277,600,000 feet. Usually there is more or less summer logging, but the indications are that there will be little done the coming season in that direction. The highest estimate placed upon the new log product to come the Tittabawassee booms is 300,000,000 feet, and it is believed that the actual output will fall short of those figures.

The estimate of new logs put into Rifle river as furnished from official sources, is 60,000,000 feet of short and 12,000,000 feet of long logs. The long logs will be rafted to Port Huron and Detroit, and do not enter into the calculation of the supply of the Saginaw river mills.

From official sources it is also learned that the estimate of new logs to come through the booms on Au Gres river is 43,831,000 feet. There was put into Smith and Hale creeks 35,000,000 feet, all of which will be hauled by rail to East Tawas, and will be manufactured at that point.

The new log product of Kawkawlin river is estimated at 7,000,000 feet, and Pine river (shore) 5,000,000 feet.

The foregoing are the streams included in the area known as the Saginaw district, and which furnishes stock for the Saginaw river mills.

There will be a total of logs hauled over the Saginaw Bay and Northwestern branch of the Michigan Central and put into Saginaw Bay to be rafted to the Saginaw river, about 30,000,000 feet of logs.

RECAPITULATION OF NEW LOGS.

| | *Feet.* |
|---|---|
| Total above the Saginaw | 277,600,000 |
| Rifle river | 72,000,000 |
| Au Gres river | 43,831,000 |
| Pine (shore) | 5,000,000 |
| Kawkawlin | 7,000,000 |
| Saginaw bay railroad | 30,000,000 |
| Total | 435,431,000 |

Add to the foregoing 35,000,000 put into Smith and Hale creeks, tributaries of the Au Gres, and which go to East Tawas by rail and to be manufactured there, have a grand total for the district of 470,431,000 feet. Deduct the 35,000,000 feet referred to, and the 12,000,000 feet of Rifle stock going to Port Huron and Detroit, and there remains for the supply of the Saginaw river mills a total of 423,431,000 feet.

OLD LOGS.

There is in the booms and streams, logs put in during the season of 1884 and to come out the coming season, the following quantities :

| | *Feet.* |
|---|---|
| Above the Saginaw | 75,000,000 |
| Saginaw river mill booms | 74,034,890 |
| Rifle river | 20,000,000 |
| Pine river (shore) | 2,500,000 |
| Kawkawlin river | 3,000,000 |
| Au Gres river | 20,000,000 |
| Total old logs | 194,534,890 |
| Total new logs | 423,431,000 |
| Grand total | 617,965,890 |
| Ratfed out in 1884 | 771,195,083 |

There will come to the Saginaw river direct during the season via the Flint & Pere Marquette and Mackinaw division of the Michigan Central, about 100,000,000 feet, or less than one-half of the quantity hauled in 1884, which, providing all the stock put in upon the several streams is rafted out, gives a total of 717,000,000 feet, but it will be remarkable if all the logs put in are rafted. In fact it is safe to say they will not be.

When it is understood that the Saginaw river mills manufactured during 1984 a total of 964,135,984 feet of pine and 14,061,869 feet of hardwood lumber, it will be conceded that lumbermen have been in earnest in curtailing, and that there is quite likely to be a good deal of leisure in store for some of the river mills the coming season.—*Lumberman's Gazette.*

## ADJUSTING A BIG GEAR.

J. F. Hobart, in the *American Machinist*, tell how "Bob" engineered a big gear on to a shaft and got out of a bad scrape : "One day boss sent Bob and two 'bummers' twenty miles into the country to put on a big five-foot bevel gear. The shaft had been calipered by the owner. He sent a piece of wire and said it was just the size of the shaft. Bob engineered the gear into the wheel pit. He juggled it over bridge-trees, under stuff spouts (it was a paper mill) and between timbers and posts. It went on to the end of the shaft all right ; and slid 8 inches and stuck. He turned it ¼ around, and tried again. No use ; that gear would fit too soon every time. He calipered the shaft. Owner got it just right at the spot when he measured it, but he did't think to caliper that shaft at more than one place. Too bad ! That gear has got to slide on about four feet. It is Saturday, 10 A. M., and the last train goes at 5 P. M. Bob got a file and scraped away for half an hour. The gear went on three inches further. 'No use,' thought Bob, 'six inches per hour, means eight hours to four feet and that means 6 P. M. Can't stand that racket anyhow.' Bob went to thinking. He thought easy. It came natural to him. He was always thinking about something. Bob rigged the differential chain falls to pull the gear on the shaft. Then he put his rope falls out the other way so as to pull the gear off. He put two six inch by six inch timbers between the arms of that gear, blocked up under one timber and shoved down the other. He set up one of his strikers with a bucket of water and tin dipper ; the other man he rigged out with a barrel of sand. Bob started the water wheel. Mike wet the shaft, and Tom dusted on sand. Bob handled in on the chain falls. That gear walked right up to business, and came on four inches further than it had been before, then it stopped coming and began to squeal. Bob slackened up his chain falls, ran around the other side and worked the gear off again with his rope tackle. Mike and Tom wet and sanded the shaft again. The gear came right up again, hungry as ever. It slid over the bunch and went eight inches. Once Bob almost got sick. The gear hub was hot. The shaft smoked, and the wheel almost stopped before he could draw the gear back. If it had stopped there, Tom would have been in a box. He would have had to pull the gear off in a press. At 12.30 P. M., the gear was up against the bridge tree where it belonged. It was very hot and Bob couldn't bear his hand on it a second. It came awful hard the last inch. The sand had got all ground out, but Bob 'thought she would come,' and just got the gear in place, when it squealed and stopped. The key ways were a quarter turn off. Bob couldn't stop the gear again with a jack-screw. He packed up his kit, gave the owner the key, and told him to drive it in after the gear worked loose. Bob went to town on the 1.20 train. Owner ran the mill six weeks when the gear got loose and slipped. That shaft was 4 inches in diameter, and carried 120 horse power. Bob used his brains and got out of a bad scrape in good shape."

## INSTRUCTIONS ON STRAIGHTENING SAWS.

Many saws become crooked or dished at the mill, that may be straightened by any good, patient mechanic acquainted with the use of a hammer. Secure a hardwood block, of suitable height, bedded on the ground (not on a floor). The upper end of the block upon which the saw is to be worked should be oval, *i. e.*, about ½ of an inch, in a 12-inch block, higher in the centre than at the edges. Use ordinary blacksmith's hammer for say a 50 or 72 inch circular saw, of about 3 to 4 pounds weight, and a lighter hammer for smaller or thin saws. The face of a hammer should be oval, with the sharp edges ground off, so as not to cut the saw. Nail up a piece of joist or plank at opposite side of the block, with the upper side a little below the face of the block (say one inch) for the saw to rest on. While at work use a steel straight edge made of sheet steel about the thickness of an ordinary cross cut saw, say 20 inches long, 3½ inches wider at centre, and tapered to about 1 inch wide at each end, perfectly straight, with the edge slightly oval (*i. e.*, not exactly flat). For small saws use shorter ones and a little narrower. In trying the saw to find the lumps, stand it on edge and apply the straight-edge, when the saw is at a poise and on a balance, at the point of tipping either way. Mark the lump with a piece of white chalk ; have a helper to hold the saw on the block, hammer on the lumps or convex parts. All that is really necessary for a new beginner is to try the saw very often by standing it on edge and watch the effect of the blows. Any saw may be changed from a left hand to a right, or *vice versa*, in this manner. If, however, the saw is strained by gumming, with the rim or centre loose, or what is generally termed rim bound, or centre bound, it must go to a good saw maker. An inexperienced person, however, should never hammer a saw on an anvil. There is no danger changing the strain of a saw in using a wood block of any kind. All kinds of log saws may be straightened in the same manner, including mill, mulay, gang, drag, cross-cut and hand saws.—*Lumber Trade Journal.*

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## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on May 1st 1884 and 1885, and also the Consumption for the month of April 1884 and 1885 :—

| | *Stock, May 1st. 1885.* | *Stock, May 1st. 1884.* | *Consumption for the month of April 1885.* | *Consumption for the month of April 1884.* |
|---|---|---|---|---|
| Quebec Square Pine | 220,000 ft. | 317,000 ft. | 96,000 ft. | 116,000 ft. |
| " Waney Board | 241,000 " | 241,000 " | | |
| St. John Pine | 19,000 " | 21,000 " | 1,000 " | 11,000 " |
| Other Ports Pine | 43,000 " | 65,000 " | 3,000 " | 4,000 " |
| Red Pine | 37,000 " | 50,000 " | 4,000 " | 3,000 " |
| Pitch Pine, hewn | 611,000 " | 201,000 " | 77,000 " | 112,000 " |
| " Sawn | 609,000 " | 529,000 " | 308,000 " | 210,000 " |
| Planks | 60,000 " | 52,000 " | 38,000 " | 23,000 " |
| Dantzic, &c., Fir | 88,000 " | 100,000 " | 22,000 " | 5,000 " |
| Sweden and Norway Fir | 43,000 " | 85,000 " | 1,000 " | 13,000 " |
| Oak, Canadian and American | 176,000 " | 239,000 " | 12,000 " | 29,000 " |
| " Planks | 180,000 " | 159,000 " | 34,000 " | 91,000 " |
| " Baltic | 14,000 " | 12,000 " | 1,000 " | 1,000 " |
| Elm | 11,000 " | 7,000 " | 1,000 " | 3,000 " |
| Ash | 26,000 " | 19,000 " | 4,000 " | 7,000 " |
| Birch | 59,000 " | 43,000 " | 40,000 " | 31,000 " |
| East India Teak | 55,000 " | 48,000 " | 18,000 " | 10,000 " |
| Greenheart | 74,000 " | 67,000 " | 26,000 " | 15,000 " |
| N. B. & N. S. Spruce Deals | 18,800 stds. | 13,636 stds. | 2,978 stds. | 2,873 stds. |
| " Pine | 330 " | 1,940 " | | |
| Quebec Pine & Spruce Deals | 2,399 " | 6,305 " | 1,273 " | 1,742 " |
| Baltic Red Deals, &c. | 2,426 " | 4,194 " | 363 " | 170 " |
| Baltic Boards | 90 " | 60 " | 5 " | 00 " |
| " prepared Flooring | 3,825 " | 4,664 " | 1,502 " | 3,042 " |

# Chips.

A NEW saw mill has been erected about 25 miles up the river from Birtle, Man.

THE N. W. C. & N. Co., Macleod, N. W. T., have moved their saw mill to Letherbridge.

GEO. CARTWRIGHT, of Russell, Man., will shortly start a sawmill on the Bird Tail Creek, near Springfield.

THE Hudson, Wis., Lumber Company sold sold over 2,000,000 feet of lumber in a recent week.

THE United Lumber Company was formed and incorporated about a month ago, with headquarters at Buffalo, N. Y., for the purpose of handling a large hemlock lumber trade.

THE freight traffic on the Chicago & West Michigan railroad is reported heavy this spring, mainly on account of unusually large lumber shipments.

IT will require from 800 to 1,000 men to get the 98,000,000 feet of Penobscot river, Me., logs into the booms. Wages range from $1.25 to $2.50 a day.

CALVIN & SONS started their first raft of 50 drams of oak timber from Kingston to Quebec on the 4th inst. is tow of the tug, John A. Macdonald.

THOMPSON SMITH'S sons of Duncan City, Mich., got out a stick of white pine in that vicinity that was 59 feet long and 33 inches square.

A. D. HENSEL & BRO., of Warren, Pa., have bought 200 acres of pine land near Chippewa Station, Mich., and have shipped their mill to that point.

THE Knapp, Stout & Co. Company's big mill at Menomonie in one day, recently, sawed 405,000 feet of lumber, and on the same day the steam mill sawed 112,000, making a total of 517,000.

THE Lynwood tannery, at Conklingville, N. Y., has been obliged to cease operations on account of a lack of hemlock bark. It was built in 1847. During the thirty-seven years of its operation it is estimated that it has consumed the hemlock bark on 21,000 acres.

THE barque Harmonia, from Pensacola to England, with pitch pine, was waterlogged, and had to be abandoned April 7th in mid ocean. A severe gale tore things generally, and drove the men, 12 in number, to the mast, where they were lashed to the rigging for 48 hours. They were rescued by a ship coming this way, and brought to New York. The bark left Pensacola April 4th. The vessel and cargo was a total loss.

### THE TIMBER TRADE.

With regard to the timber trade, we learn with much pleasure that the representative from this port who have visited Europe this winter have returned with an amount of business obtained far in excess of last year, and more than they anticipated. Deals have sold fairly well, also some descriptions of timber. In this connection the decrease in the production of white pine in the Ottawa district will, it is stated, be about one third less than last year. The demand for white pine square timber has not, however, rallied in the home market. A considerable quantity of this timber is reported still in first hands. On the whole, a good spring trade is anticipated. The late freshets have proved somewhat disastrous to mill owners, but the extent of losses is difficult to ascertain. The orders for grain and produce are reported to be very much in excess of the same period last year, so that a lively trade all around may be expected in Quebec, and there is need for it. —*Quebec Chronicle.*

**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

J. K. POST & CO.
**LUMBER MERCHANTS**
And Shipping Agents.
OSWEGO, N. Y. 1Lt

HENDERSON BROS.
**LUMBER AND TIMBER.**
**Building & Bridge Timber Sawn to Order.**
Pine, Spruce and Hemlock Lumber by the Cargo.
Steam Saw Mills, Box Factory and Yards.—342 to 390 William St., and 130 St. Constant St., Montreal.
Steam Saw Mills, L'Assomption, P.Q.
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**FILES-** Now's the Time
Collect and Ship them to be
RE-CUT
BEFORE THE SPRING OPENS.
DO NOT WASTE
Your Money on Buying new, when the old ones will do. We pay Freight one way,
SHIP THEM TO-DAY
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ONTARIO FILE CO.
150 FRONT STREET, EAST, TORONTO.
Agents Wanted Everywhere. 13L6

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For PURITY,
WHOLESOMENESS,
And STRENGTH
**It stands without a Rival!**
Pure Gold Manufacturing Co.
FAIRPORT, N.Y., and TORONTO, ONT.
1yl22

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Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

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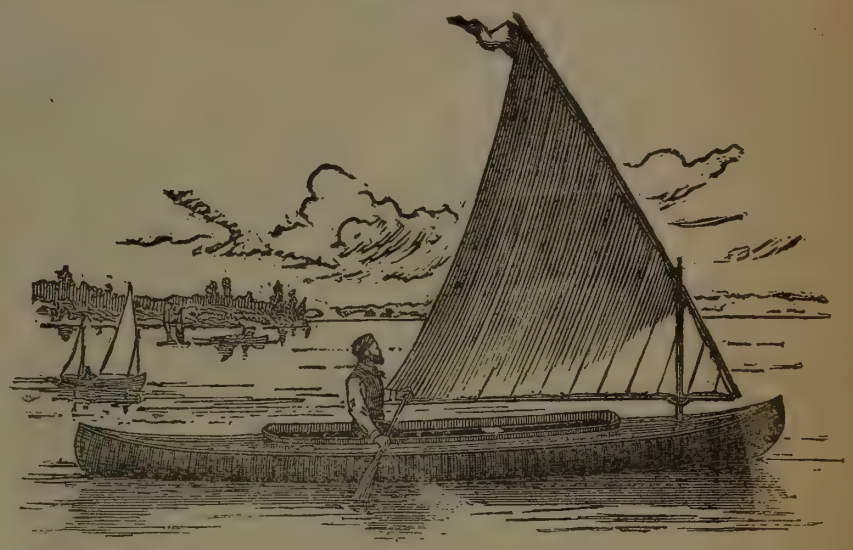

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Tarred Felt, Roofing Pitch, Sheathing and Building Papers, Carpet and Rosined Waterproof Paper, Ready Roofing, &c. ☞All orders promptly attended to at LOW PRICES.

H. WILLIAMS,
4 Adelaide Street East, Toronto

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

MAY 25.—There is now a steady demand from the retail yards with considerable cutting in prices, although it must be understood that lumber, like grain, if furnished of a uniform grade, figures cannot vary materially. Either the dealer must be satisfied with small profits on his sales, or his lumber must be inferior, or, as is sometimes the case, contain a good sprinkling of hemlock, otherwise all dealers must quote nearly alike, and there is no earthly reason, except the wish to take the lion's share, why all the dealers should not quote prices exactly the same. Mill men held out firmly for $9.00 per M on bill stuff 16 feet long and under, it will take $2.25 to land it here, 50 cents more to take it into the yards and the same to deliver it out again, and yet some dealers are credited with delivering bills at $12.50 from yard to the ground to be built upon. Such profits are pitiful in the extreme, and if considered satisfactory by the dealer we must come to the same conclusion that the old woman did who professed to sell her apples for less than cost, and when asked how she managed to live, said that it was the large quantity she sold that enabled her to do so. Now I would squarely ask the retail dealers why should this state of things continue to exist, if you say competition is so severe we cannot help it, then I answer the sooner some of you go out of the business the better, as on such profits before spoken of it only remains a question of time when some of you will have to go out of it. The same quantity of lumber can be sold at a fair profit as at such paltry remuneration as that I have named, so that it is only a question as to agreement between yourselves and then carrying out that agreement in a fair and honest manner, no one dealer seeking to take the advantage of the other.

The coarser grades of lumber are coming in by rail faster than needed, but the wholesale dealers do not seem disposed to sacrifice and are unloading by the side of the track.

Shipments over our docks are proceeding but slowly, the quantity on hand to ship before the new cut is fit to move is small and will soon be shipped out. The coarser grades of coarse box lumber is worth in the American market from 50 to 75 cents better than last season's prices. Purchasers fight shy of paying any higher prices, but will have to accept the situation.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| ound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1¼-inch flooring, dressed | 30 00 |
| 1¼ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅞ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## WINNIPEG.

The *Commercial* of May 19th says:—The lumber trade still remains in the same slow and unsatisfactory state. The past week has brought about no improvement, and dealers think the outlook for the balance of the summer is very discouraging. Sales have all been of small lots, and there is very little hope of any very heavy undertaking which which would require big supplies being proceeded with this summer. Quotations are not to be had, and although no reckless cutting is reported, figures vary with the size of the order.

## MONTREAL.

*From Our Own Correspondent.*

MAY 23.—Merchants say they have just got into summer business, and are making fair sales ex barge, but business is not what it was in 1882 and 1883, although a fair consumptive demand is expected, and things are pretty lively in the United States. We again reduce the price of laths, but other quotations are unchanged as under, ex yard. Stocks are pretty full:—

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Bass, " " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 50@ 0 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

SHIPPING.

Shipping has not begun yet for the river Platte, but we hear of engagements at $12.50 to $13.50. A considerable quantity of deals are shipped to England, the rates charged are 40s. to 52s. 6d. according to port of discharge, viz.: To Glasgow, 40s. to 45s.; to Liverpool, 45s. to 50s.; to London, 50s. to 52s. 6d. The following are the shipments recorded at the Custom House since the opening of navigation: Per SS Sarmatian, to Liverpool, 4,114 pcs. deals; per SS Nipegeon, to Liverpool, 597 pcs. lumber; per SS Polynesian, to Liverpool, 8,749 pcs. deals and 11,874 boards; per Carthagenian, to Glasgow, 2,510 pcs. deals.

CORDWOOD.

Market prices are unchanged and business dull with downward tendency, large quantities are arriving by boat, but generally of a poor quality. We quote wholesale prices ex cartage at the wharves unchanged as under:

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

LIVERPOOL MARKETS.

Our latest advices state that political complications have varied from day to day during the whole of last month and the suspense is causing serious injury to almost all commercial enterprises. Spruce deals—a cargo of St. John, N. B., of good specification, sold at £6 10s. ex yard, and Halifax, Nova Scotia, at £5 16s. 9d. ex quay. Sales by auction early this month are reported at £6 2s. 11d., ex quay, and a yarded cargo at £6 8s. 6d.

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $55 00@60 00 |
| Pine, fourths | 50 00@55 00 |
| Pine, selects | 45 00@50 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@15 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1½ in. siding, select | 40 00@43 00 |
| Pine, 1½-in. siding, common | 20 00@00 00 |
| Pine, 1-in. siding, select | 42 00@45 00 |
| Pine, inch siding, common | 15 00@18 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ⅝ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ⅝-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅝-inch | 28 00@30 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 00@ 4 00 |
| " clear, " | 0 00@ 3 50 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ℔ M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 00 |

## CHICAGO.

THE CARGO MARKET.

The *Northwestern Lumberman* of May 23rd says:—Since our last week's report the wind has been piping in from the northward, and sending along from the ports on both shores of Lake Michigan every vessel that had its nose pointed this way. The daily arrivals since Friday last have averaged about 30, and on Tuesday 51 figured in the port list, the total for the week being 214. It is thought by the men about the market that fully one-half of the loads coming to port have stopped on the market.

The character of the stuff offered for sale has been the subject of emphatic comment. It has been termed "scabs," "rag tag and bobtail," "mill culls," and other choice names.

One would naturally think that such an overload of poor stuff would have been sufficient to utterly blockade and break down the market, especially since the yard men are rather indifferent about buying. But such has not been the result. The fleet has been worked off with remarkable facility, under the circumstances.

The price of east shore green piece stuff—which now means 20-foot lengths and under—has been $8.50 a thousand. Menominee dimension has been offered to some extent. Five loads from the Ludington, Wells and Van Schaick stock have been sold on the market, four of which changed hands at $8.25 a thousand and one at $8.50. The lumber was green from the saws. On the other hand, several cargoes of dry dimension, largely Norway, from Menominee, have sold at $9.50 a thousand. One yard man says that he paid $10 a thousand for a cargo of Manistee stuff, that was just what he wanted as to length, size and quality for his city contractors' and builders' trade. A cargo of Menominee piece stuff went into canal boats on Thursday at $8.25 a thousand, but it was rather poor lumber. Without doubt a good quality of white pine short, east shore dimension, with a sprinkling of Norway in, would sell readily at $8.50, and strictly dry would bring $9.75.

When we come to inch lumber both sellers and buyers are somewhat confused in their opinions and statements. Mill culls are selling at $5.50 to $6.50; shipping culls from $8.50 to $9, and No. 2 stock, when it can be found, goes at $10.50, while a strictly good cargo may bring $11. These prices are for carried over stock that is considered dry. We hear of one cargo of mill run, with a percentage of siding strips out, that was sold at $12.50, the strips going at $30 a thousand. Little medium or No. 1 lumber is coming on the market, and such dealings there are in the better classes of lumber are of a peddling kind that does not make a market. Most of such stock going into yard has been purchased to arrive, and cuts no figure on the market.

The common run of standard shingles are reported at $1.90 to $2 a thousand, while strictly good brands in the standard class, like the Boyden & Akeley, reach $2.05. Few shingles of any other than standards are coming, while the arrivals of all sorts are not excessive.

Green lath is worth from $1.25 to $1.40 a thousand.

Lake freights are weak on a basis of $1.12½ from Muskegon.

AT THE YARDS.

There has been an increase of lumber movement during the week. If prices were satisfactory, the dealers could now be fairly satisfied. This is not saying that the trade has suddenly bounded from the dullness of a week or 10 days ago to one of extraordinary demand. The condition is simply one of a fair distribution to satisfy a consumptive requirement.

The price list, as lately revised in trade meeting, is giving more satifaction than it did when first promulgated. It is is still critized as being two low on some of the better grades, but on the whole it is considered as near a good average as a price list can be, made in open meeting, and steered by a man or two who have an object in view. Yet it is a fact that some items in thick selects, flooring and other strips are being sold at from $1 to $1.50 a thousand below the present list, and sold freely thus, too. But common boards and dimension are fairly firm at an occasional shade of 50 cents a thousand off the list. Since it is impossible to please everybody, it can be safely assumed that the list as it stands could not be materially improved in open meeting of the trade, but there should be a better system for arriving at a a correct judgment of selling values, and incorporating that judgment in a price list. More harmony and hardwork would accomplish such a result.

It thought by some that the list price of standard shingles is placed too low. This class of shingles is selling on the cargo market at $1.90 to $2.00 a thousand, and is listed in the trade at $2.10. This leaves but a small margin for handling. But it is a favorable season for cheap shingles, so far as the yard men are concerned, for they can lay in a stock at low prices, and trust to a later rise for their profits.

Receipts of lumber, shingles, etc., from Jan. 1st to May 21st as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 63,439,000 | 15,259,000 |
| 1884 | 62,758,000 | 83,519,000 |

FROM JANUARY JAN. 1, 1885, TO MAY 21, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 202,055,000 | 51,204,000 |
| 1884 | 424,699,000 | 146,184,000 |
| Decrease | 222,644,000 | 94,980,000 |

STOCK ON HAND MAY. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 334,729,669 | 289,216,785 |
| Shingles | 164,710,350 | 204,567,875 |
| Lath | 18,064,887 | 27,063,840 |
| Pickets | 1,775,573 | 1,092,418 |
| Cedar posts | 132,500 | 236,493 |

LAKE RECEIPTS FROM JAN. 1 TO MAY 21.

| | |
|---|---|
| Lumber | 116,969,000 |
| Shingles | 33,164,000 |
| Lath | 5,004,000 |

FREIGHT RATES TO EASTERN POINTS.

In effect from April 6th, 1885, to Oct. 31st, 1885, on pine, hard and soft lumber, lath, shingles and logs, in car loads, per 100 pounds.

| | |
|---|---|
| Chicago to— | |
| New York and common points, per 100 pounds | 30c. |
| Albany | 28c. |
| Boston and common points | 35c. |
| Philadelphia | 28c. |
| Baltimore | 27c. |
| Washington | 27c. |
| Buffalo and Pittsburgh | 17½c. |
| Erie, Pa | 17½c. |
| Dunkirk, N. Y. | 17½c. |
| Troy | 28c. |
| Shenectady | 28c. |
| Wheeling | 17½c. |

## OSWEGO, N.Y.

*From Our Own Correspondent*

| | |
|---|---|
| Three uppers | $44 00@46 00 |
| Picking | 34 00@36 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 20 00@22 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. stripe | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 75@ 4 00 |
| Cedar | 3 00@ 3 10 |
| Lath, No 1 | 1 90@ 1 95 |
| No 2 | 1 50@ 1 50 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 50 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## BOSTON.

The *Journal of Commerce* of May 23rd says: The demand for pine is quite and moderate at about the prices recently prevailing. The southern pine trade is of limited proportions, with prices pretty steadily held. Spruce and hemlock are in good request, and are quite firm. Walnut about holds its own. Ash and oak are quiet. Cherry receives a moderate call. Whitewood continues to move well.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

### LIVERPOOL.

The *Timber Trades Journal* of May 16th says:—The arrivals during the past few days have imparted considerably more liveliness into the appearnnce of timber docks and quays, and as the cargoes are of a fairly diversified character there has also been more animation shown at the various forwarding centres. Several cargoes of Norwegian flooring are landing, the quality of some being of noticeable excellence, and these appear to be going into consumption with more freedom than hitherto. This, no doubt, has been effected through the recent advance in prices demanded by shippers of these goods, who, in expectation of the outbreak of war, raised the rates of white flooring five shillings per standard, and which they are still endeavouring to maintain. Whether they will succeed in doing this remains to be seen, as much will depend upon the attitude taken up by the holders and shippers of North American spruce deals.

With the maintenance of the increase in prices obtained at the recent auction sales, and the reported probable short supply available for the coming season's export from St. John, N. B., Miramichi and the Nova Scotian ports, prices do not seem likely to give way from their present position, and as there is also a steady demand from ports around the coast for spruce, shippers and their agents are very firm at their quotations.

The freight market from these ports show firmer than before, and this too has considerable influence in rendering any decline probable.

Sawn pitch pine timber is moving away from the quays in a satisfactory manner, and prices for cargoes to arrive have already shown an advance, but yet not sufficient to compensate for the increase in the rates of freight now being paid.

On the other hand hewn pitch pine timber is going off slowly, notwithstanding the fact that several cargoes of excellent quality and manufacture have recently been landed.

There have been no public sales during the past week, but that announced to be held by Messrs. Farnworth & Jardine will be of interest, as the spruce deals (which by the way are stored stocks) will possibly show an advance on late rates. Though the stocks of these goods are large, they are principally held by one firm, who are not likely to give them away.

### LONDON.

The *Timber Trades Journal* of May 16th says:—The dock deliveries invite no comment this week, being very nearly on a par with those of the same week last year—slightly under with respect to flooring, but 165 loads of hewn timber in excess—the difference is something to the good for the present week. Whether the trade will maintain its pace or again become languid, as the peace prospects become more generally recognized, remains to be seen, but there will be less disposition to buy speculatively, no doubt, if the war preparations entirely subside: they doubtless gave a stimulus to trade while they were energetically pursued.

The arrival list to London this week, though not running into very big numbers, is nevertheless a full average one for the time of year, and and of the twenty-two ships entering the port eleven are steamers of large tonnage with full cargoes.

Messrs. Churchill & Sim had rather less than their usual attendance at Wednesday's sale, but then this appearance may have been partly due to the absence of many of the youngsters who attend for the purpose of marking catalogues. We observed that very few country buyers were present, but the cargoes submitted, with the exception of timber and sundries, were what the trade have had a surfeit of lately,—viz. flooring boards. Nevertheless, prices at the sale of this latter description held firm and on some descriptions a slight advance was traceable.

As respects London we have a very large increase in the comparative consumption of timber this year over last up to date of over 2,000 loads recorded, but probably much more than this would represent the difference in favor of the present year, of which the dock company take no account, the rafts having left the ships side direct for the works where they were required.

All the large consumers—and the small too for the matter of that—in and around London will be all the happier for the return of prices to their former tone.

Thursday witnessed a much better muster of the trade than the previous day. The large parcel of Odessa wainscot submitted without reserve proved attractive to those of the large dealers who do a trade in hardwood, but prices in spite of the comparatively short stocks here showed a decided fall on those obtained a fortnight ago. The uncertainty attaching to the supply operates unfavorably on the market here, and dealers are timid about buying largely, in fear of the market being overburdened by heavy shipments later on. The readiness with which goods are now shipped consequent on the low freights directly any activity in the consumption is reported, is a great drawback to speculation.

With respect to Odessa, however, buyers can calculate with some degree of certainty that the fresh shipments of goods will not follow on the heels of the market in the same rapid manner that they do from the Baltic side. Though Odessa by water is only a three weeks' cruse for a fast steamer, things over there are not conducted with the same despatch as on the Baltic side, but this interval is a mere bagatelle where hardwoods are concerned, the sale of the stuff being slow. With the anticipation of a war with Russia all hesitation vanished and buyers were plentiful on all sides; now that this scare has disappeared prices experience the reaction.

### TYNE.

The *Timber Trades Journal* of May 16th says:—Since the date of my report the arrivals of wood goods have been on a large scale and of a varied assortment. Two cargoes of teak are reported, one from Rangoon and another from Bangkok, several cargoes of Memel deals and timber, one of Riga, some cargoes of dressed boards from Drammen, a cargo from Stockholm, being first of the season from that district, and a large quantity of good by the Christiania and Gothenburg steamers, of which there have been several arrivals. These goods have as a rule been sent forward into consumption, the stocks of wood goods having been of late greatly reduced in amount.

So far trade does not very greatly improve. There are, no doubt, a good many contracts going forward, and the consumption of timber is large, but as compared with former years it is very small indeed. The railway companies' returns, which are a fair index of the volume of trade, show a very great decrease even as compared with last year.

Several steamers are reported to be loading at Baltic ports for the Tyne, so that in the course of fourteen days we may expect the import to be in full swing.

The war scare having apparently passed away, prices appear to be settling down to their former level. A few cargoes of deals appear to have been placed here during the excitement of the time at prices which will not allow the importer to sell at a profit on arrival.

### Important Action.

One of the most important actions ever before the Courts of this Province was begun on May 18th, before the Chancellor in Osgoode Hall. So far as appears on the record of the Court, it is an action by the Attorney-General of the Province for an action restraining the St. Cathrines Milling and Lumber Company from taking timber cut on a limit leased from the Dominion and situated on what was lately known as the disputed territory. The defence set up is that this territory was ceded to the Crown in 1873 by a tribe of Ojibeways, consequently under control of the Dominion authorities. The Attorney-General contends that the Indians had no title to the land in question, hence they could not cede the right to Crown. The territory included covers 55,000 square miles. The case is sure to ultimately reach the Privy Council.

Don't disgust everyboby by hawking, blowing and spitting, but use Dr. Sage's Catarrh Remedy and be cured.

MONTREAL SAW WORKS

MONTREAL.

CHAS. M. WHITLAW, Manager.

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

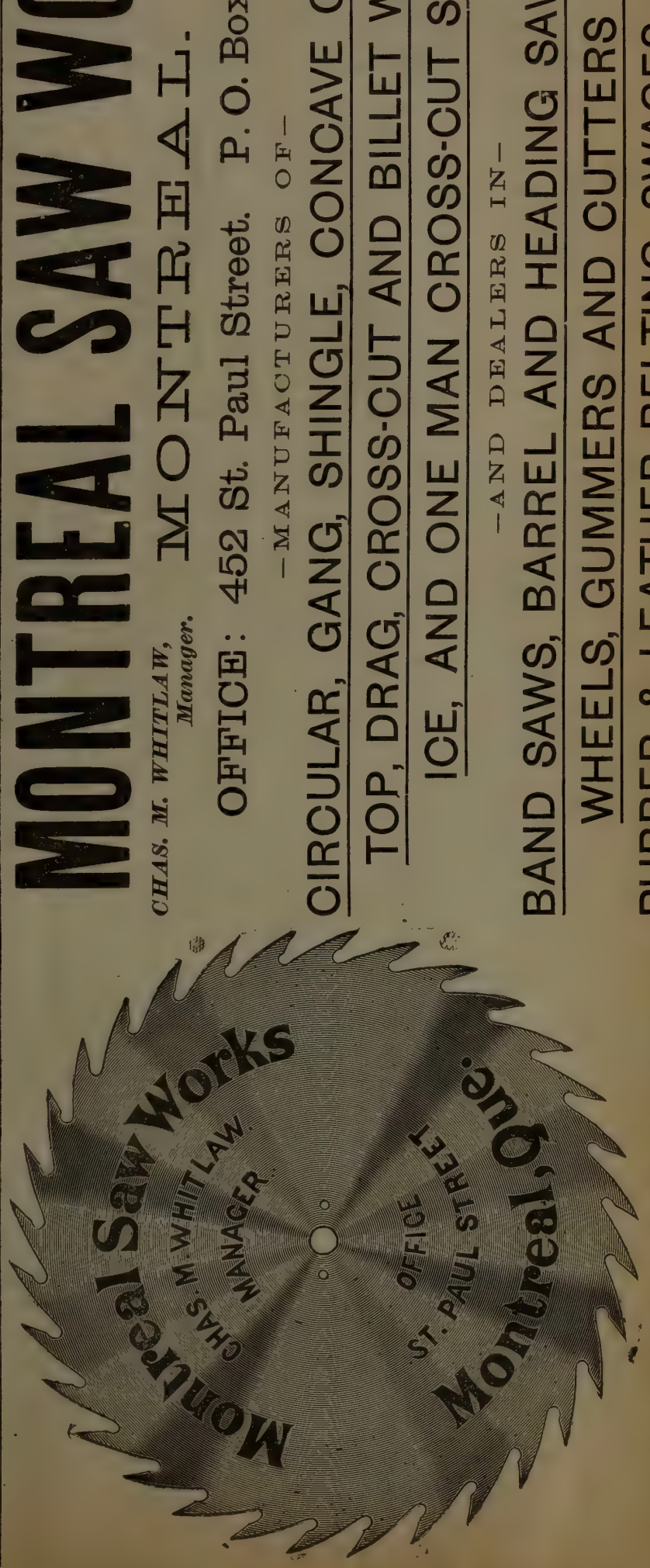
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.




Catalogues and Price Lists furnished on application.

# THE LANE MANUFACTURING COMPANY!

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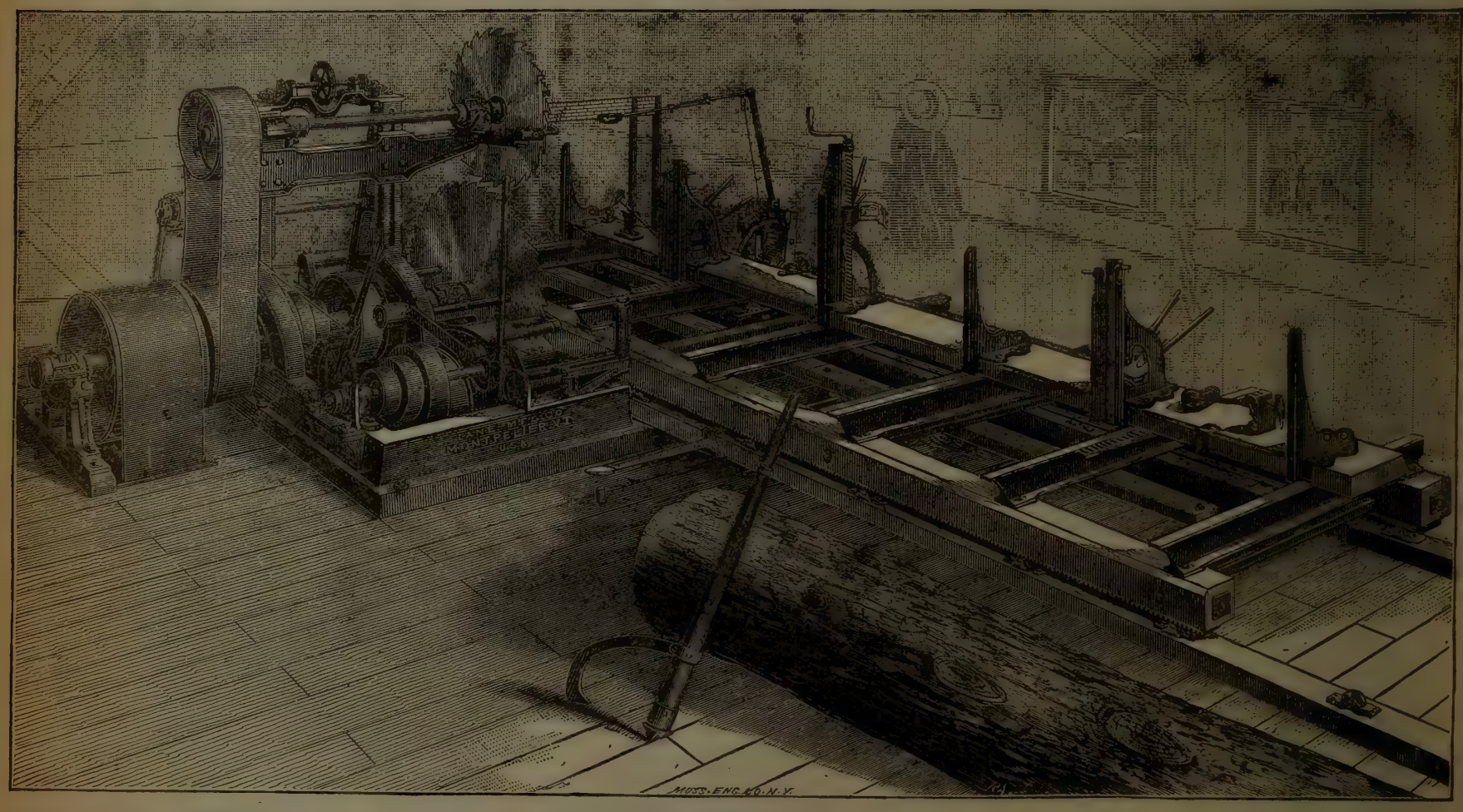
MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS



Circular Saw Mills,
Saw Mill Set Works,
Double and Single Traveling Bed Planers, Shingle Bolters,
Bed Timber Planers,

Clapboard Machines,
Clapboard Planers,
Stationery Bed or Roll Feed Planers,
Drag Saw Rigs,

Shingle Machines,
Lath Machines,
Double and Single Power Feed Edgers,
Mill Supplies, Etc., Etc.

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**LANE MANUFACTURING CO'Y, MONTPELIER, VT.**

# The Hancock Inspirator

**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

## Over 70,000 Now in Use.

MANUFACTURED BY THE

## Hancock Inspirator Co'y

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MONTREAL, P.Q. - CANADA

Manufacturers of Inspirators, Ejectors, and General Jet Apparatus. 1yl1

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LUMBER DRIVERS'

# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

*ST. JOHN, N.B.*

**Samples and Price Lists sent by mail on application.** 1l2

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# HUGH GIBSON,

MANUFACTURER OF

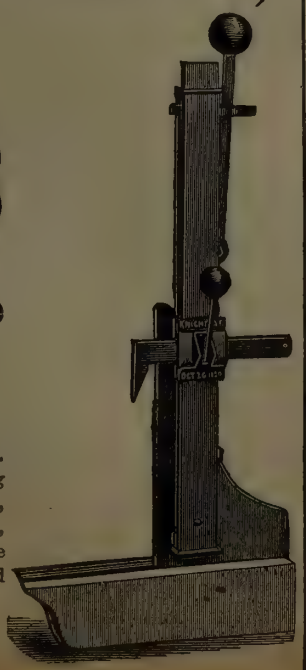
KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Mlldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



EXCELSIOR DOG.

**Manufactured by HUGH GIBSON, CHATHAM.**

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*Something New in Leather Belting*

**To Mill Owners, Lumbermen, Manufacturers**
***USE ONLY***

# Dixon's Patent Lap Joint Star Rivet Leather Belting

To be had only from

F. E. DIXON & Co., 70 King Street East, Toronto

**Send for Circulars and Price Lists.**

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# PETER ROBERTSON

CHAUDIERE, - OTTAWA,

MANUFACTURER OF

# LUMBERMANS' TOOLS!

**Which took every honor awarded at the Centennial Exhibition.**

***THE CELEBRATED***

## Lightning Cant Dog.

PETER ROBERTSON, Chaudiere, Ottawa. 20l1y

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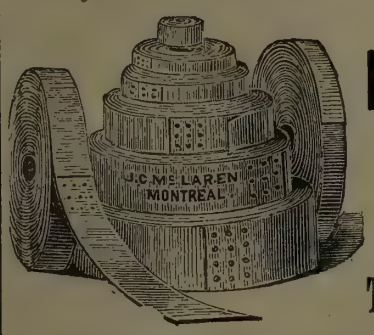
ESTABLISHED 1856

# OAK TANNED BELTING




Acknowledged by all to be the

## Best Belt ever offered

*IN CANADA*

*EVERY BELT GUARANTEED*

The Best Mills in the Country use it.

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

For Discounts and Terms, Address

## JNO. C. McLAREN,

292 & 294 ST. JAMES STREET WEST, MONTREAL.

**Lace Leather, American Rubber and Cotton Belting, etc., always on hand** 15ml20

# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

## *Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

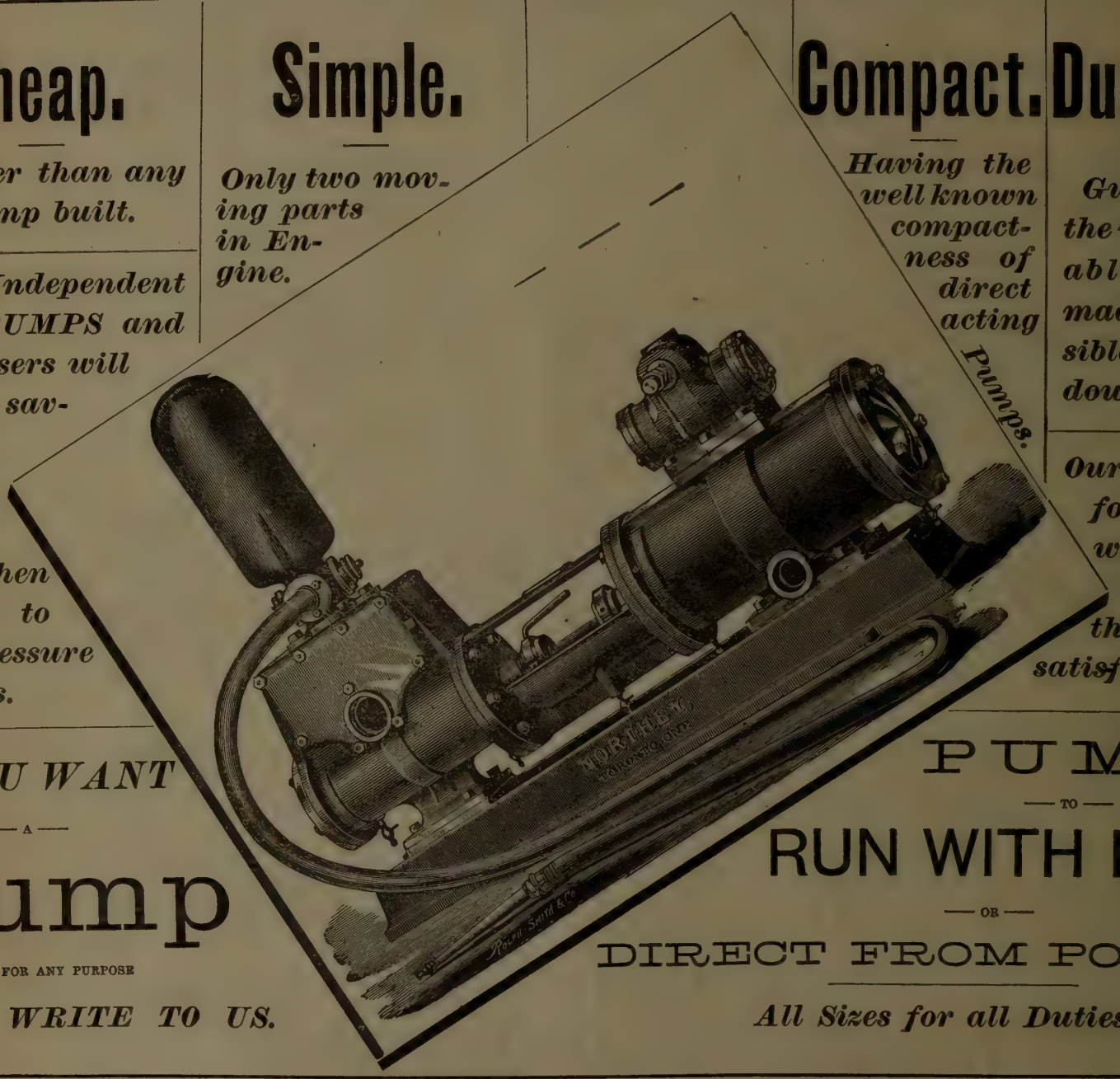
**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

**Simple.**

***Only two moving parts in Engine.***



**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

***IF YOU WANT***

— A —

**Pump**

FOR ANY PURPOSE

***WRITE TO US.***

**PUMPS**

— TO —

**RUN WITH BELT**

— OR —

**DIRECT FROM POWER**

***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

## WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

# SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

# NORTHEY & COMPANY,

Corner FRONT & PARLIAMENT STS., TORONTO, ONT.

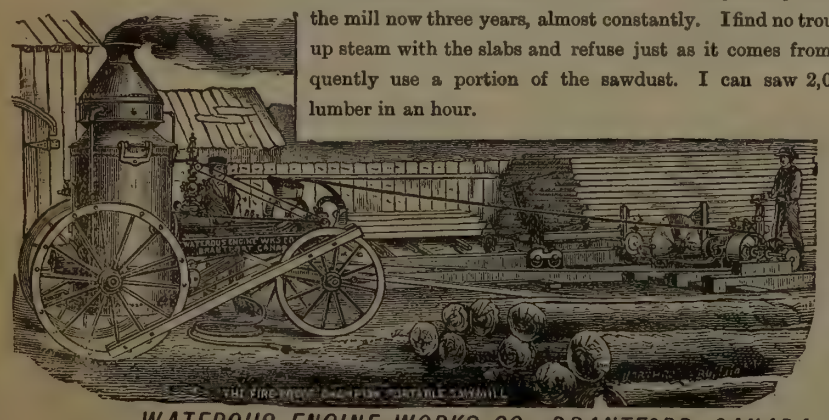
# American Saw-mill Machinery, PORTABLE AND SEMI-PORTABLE Direct Action & Belted Saw-mills

From 16 to 200 horse-power, and from a capacity of 2,000 to 80,000 feet per day of 10 hours.

## CHAMPION PORTABLE SAW-MILLS

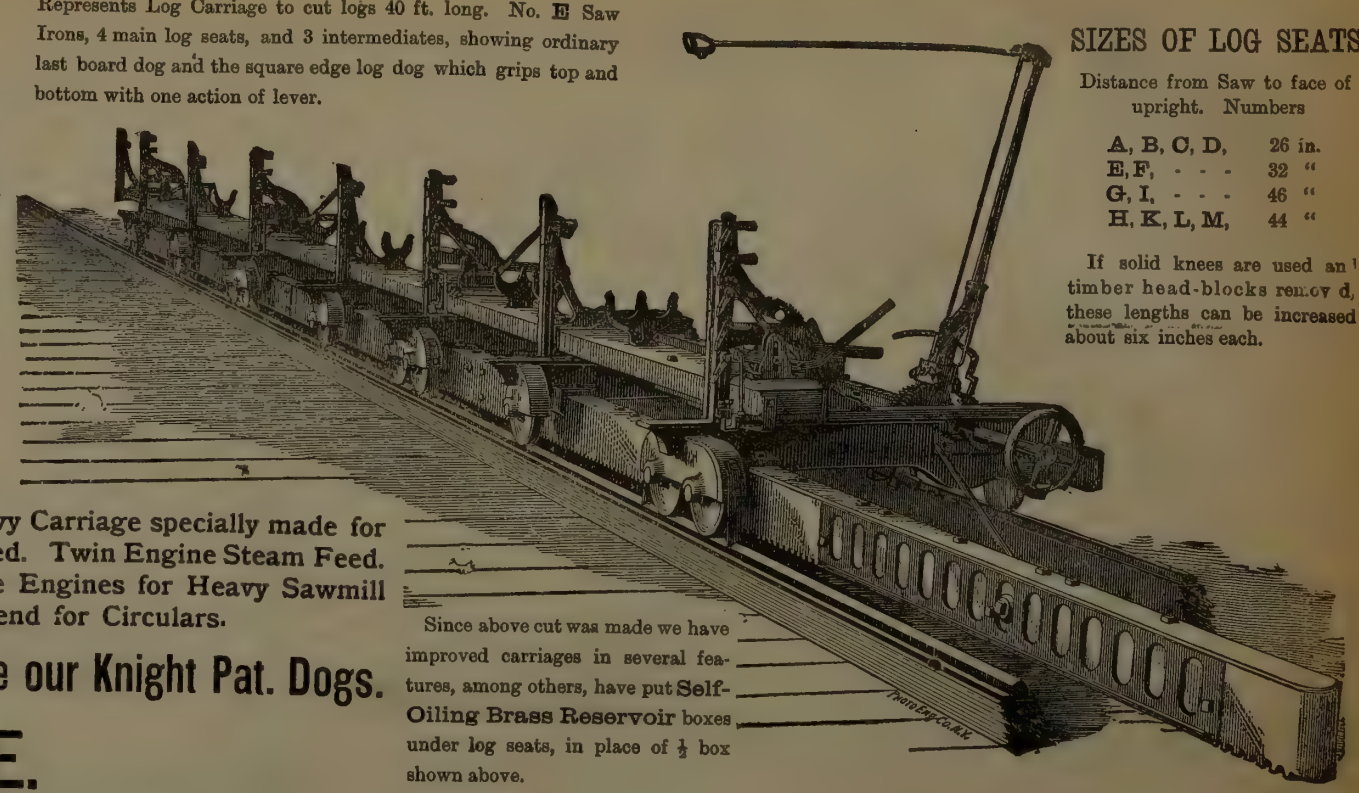
12, 16, and 20 H.-P.

GEORGE BOOK writes as follows:—"St. Ann's, Ont., July 27th, 1882. I have just finished sawing with your 20-horse Champion Engine, and No. 3 mill before harvest. At the last place I set down, we cut 345,000 feet, mostly inch, 70,000 being oak, in nine weeks. We were just ten weeks from time we moved mill till we returned home with it. We sawed above without an accident or delay of any kind. I have run the mill now three years, almost constantly. I find no trouble in keeping up steam with the slabs and refuse just as it comes from saw and frequently use a portion of the sawdust. I can saw 2,000 feet 1-inch lumber in an hour.



WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.

Represents Log Carriage to cut logs 40 ft. long. No. E Saw Irons, 4 main log seats, and 3 intermediates, showing ordinary last board dog and the square edge log dog which grips top and bottom with one action of lever.



### SIZES OF LOG SEATS

Distance from Saw to face of upright. Numbers

| | |
|---|---|
| A, B, C, D, | 26 in. |
| E, F, - - - | 32 " |
| G, I, - - - | 46 " |
| H, K, L, M, | 44 " |

If solid knees are used and timber head-blocks removed, these lengths can be increased about six inches each.

☞Heavy Carriage specially made for Steam Feed. Twin Engine Steam Feed. New Style Engines for Heavy Sawmill Work. Send for Circulars.

Examine our Knight Pat. Dogs.

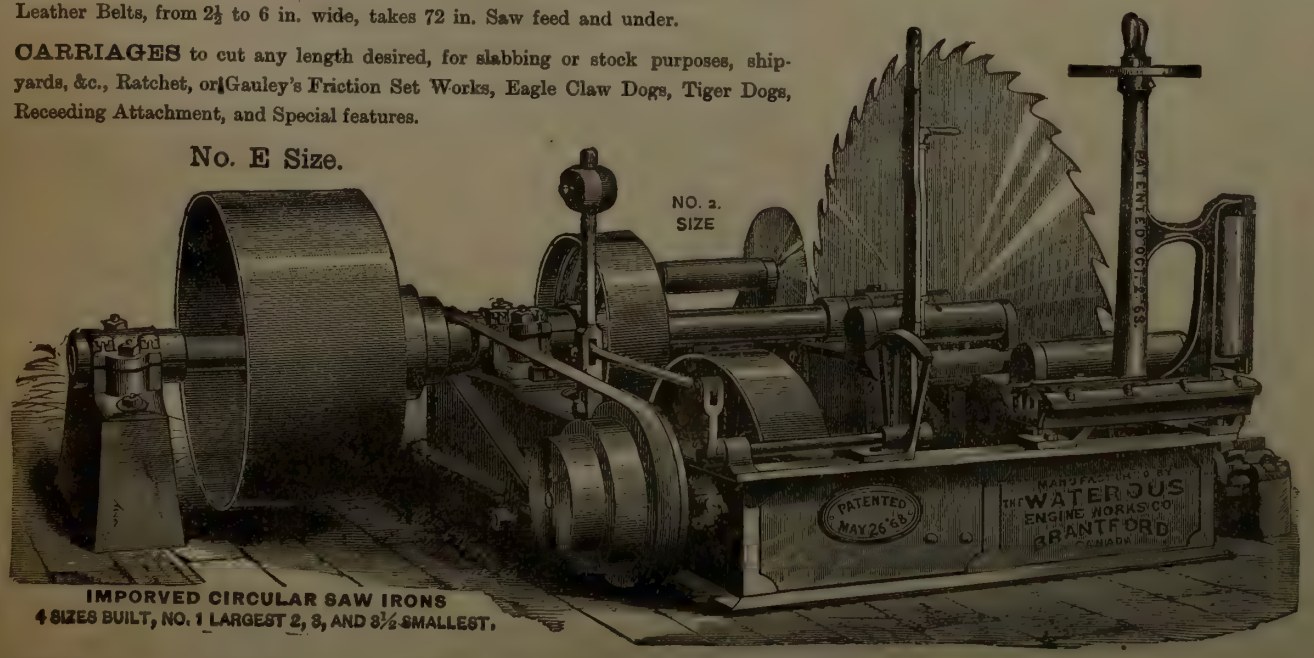
Since above cut was made we have improved carriages in several features, among others, have put **Self-Oiling Brass Reservoir** boxes under log seats, in place of ½ box shown above.

## IMPROVED SAW FRAME.

Using 4 to 12 in. Face Frictions: Steel Mandrels; Reservoir Oil Boxes:—Double Leather Belts, from 2½ to 6 in. wide, takes 72 in. Saw feed and under.

**CARRIAGES** to cut any length desired, for slabbing or stock purposes, shipyards, &c., Ratchet, or Gauley's Friction Set Works, Eagle Claw Dogs, Tiger Dogs, Receeding Attachment, and Special features.

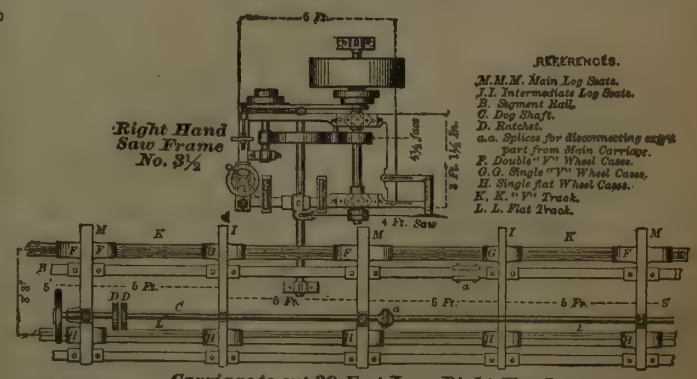
No. E Size.




IMPORVED CIRCULAR SAW IRONS
4 SIZES BUILT, NO. 1 LARGEST 2, 3, AND 3½ SMALLEST.

By direct practical experience of over forty years in the lumber woods of Canada we have gained an intimate practical knowledge of what is necessary to produce a cheap, practical, efficient saw-mill, and have so built and improved our machinery that no mills can compare with them to-day in these respects.

This view of our smallest Saw-Irons illustrates fairly all the eleven No. A. larger sizes that we make.




*Carriage to cut 30 Foot Logs, Right Hand.*

Shows Carriage with Slides on Log Seats, Upper Rail and Knees or Uprights removed.

☞Send for Prices and Illustrated Catalogue.

Send for Sawyers and Lumbermens Handbook. A new treatise on Saws and Saw-mill furnishings, just published. Free to all using Saws.

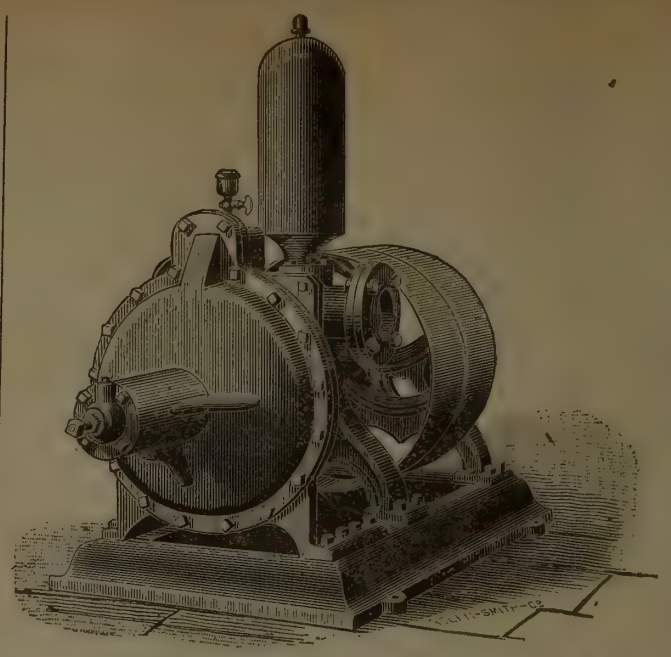
# The Waterous Engine Works Company, Brantford, Canada.

# Central Iron Works

SIMCOE STREET

**PETERBOROUGH, - Ont.**

WM. H. LAW, PROP'R.



## PROTECTION FROM FIRE

An Improved Rotary Piston Force Pump.

| No. | Diameter of Pipes. | | No. of Revolutions. | Capacity per minute at table speed. | Price. |
|---|---|---|---|---|---|
| | Suction. | Discharge. | | | |
| 2 | 2½ in. | 2 inch. | 250 | 125 | $100 |
| 3 | 4 " | 3 " | 250 | 250 | 150 |
| 4 | 5 " | 4 " | 250 | 400 | 225 |

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## Engines, Boilers, Pumps, Saw Mill Machinery

STEAMBOAT PROPELLERS AND ENGINES.

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For Architectural Works &c.

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AND ENGINEERING WORK IN GENERAL.

# Why do You Suffer when you May be Cured by Electricity?

**Without loss of time or great expense. Ten or Twenty Dollars spent in ELECTRIC BELTS will do you more good than a hundred expended any other way.**

CRYING BABIES.—Babies cry because they suffer. Their little gums are inflamed, and their bodies are more or less feverish. If you will tie around their necks one of NORMAN'S ELECTRIC TEETHING NECKLACES you will see a wonderful change for the better, their sufferings cease, and their general health improves. Ask for Norman's, and take no other, and you will be pleased. Price 50c.

FEVER AND AGUE.—Do not throw away money on worthless remedies, when NORMAN'S ELECTRIC BELTS will cure you. Use one and you will find immediate benefit. Every one is guaranteed.

LUMBAGO.—Those who suffer from this disease will find a friend in NORMAN'S ELECTRIC BELTS when all other remedies fail. Ask your druggist for it, and take no other. Guaranteed.

CONSTIPATION AND BILIOUSNESS and all disorders of the Stomach and Liver are corrected by using NORMAN'S ELECTRIC BELTS. Try one and be convinced. Guaranteed.

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WEAKNESS and Lassitude yield to the influence of NORMAN'S ELECTRIC BELTS when all other remedies fail. Try one and you will suffer no longer. Every belt guaranteed.

NERVOUS DEBILITY.—This dreaded and miserable disease is immediately relieved by the use of NORMAN'S ELECTRIC BELTS. Ask for them, take no other. Every belt guaranteed.

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RHEUMATISM cannot remain long with any one who uses NORMAN'S ELECTRIC BELTS, and Neuralgia is driven away like smoke before the wind. Give one a trial. Every belt guaranteed.

NERVOUSNESS may be entirely cured in a short time by using one of NORMAN'S ELECTRIC BELTS, without any fear of injury. Try one and be convinced. Guaranteed.

***TESTIMONIALS—A few Sample Testimonials that speak for Themselves.***

MR. A. NORMAN, WALLATTA, D.T., December 17th, 1883.
DEAR SIR,—I am happy to inform you that the Appliances I got from your Chicago agent have had a most marvellous effect upon my patient who suffered from Sciatica. He could get very little relief from medicine. Shortly after he got your belts he was able to get out of bed, and is now on a visit to his Canadian friends. Send me some more circulars. Yours truly, DR. D. McLACHLAN.

MR. NORMAN, PERTH, ONT., June, 1883.
DEAR SIR,—I have been wearing your Electric Insoles for about six months, and have been greatly benefited by them. I recommend them to all who suffer from Rheumatism. Yours truly, MRS. J. GUTHRIE.

A. NORMAN, ESQ., OTTAWA, September 3rd, 1883.
DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way. Yours truly, R. E. HALLIBURTON.

A. NORMAN, ESQ., PETERBOROUGH, October 15th, 1884.
DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured me cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good. Yours truly, J. GREEN.

## ☞CURATIVE BATHS: Electric, Vapor, Sulphur, and Hot and Cold Baths.

Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them. Consultation free. Circular on application.

## A. NORMAN, Proprietor, 4 Queen Street East, Toronto.

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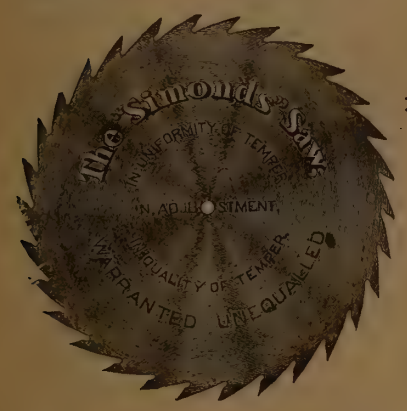
# "POCONO" AND "PARADISE."

**So many of our Mill Men and practical Sawyers have formed their opinions as to the quality of TANITE EMERY WHEELS for SAW GUMMING by a trial of one class only—our old and well-known CLASS 2 wheels—that we deem it necessary to call attention to he above comparatively new classes. All Mill Men should understand that there is no absolute and accepted standard as to Saw Gumming Wheels. The preference for one or another make is as much a MATTER OF TASTE as is preference for cheese, or wine, or music. Most of our competitors make but one class of Saw Gumming Wheels. We make FOUR, and there is about as great a difference among these four classes of Tanite Wheels as there is among the wheels of different manufacturers. It is quite probable that some who failed to be satisfied with our Class 2 may find some one of the other classes exactly what they want. It is equally probable that some who have been regular and well satisfied users of our Class 2 or 3 Wheels may be still better pleased with our "POCONO" or "PARADISE." We suggest your sending an order for four wheels, one each of Classes 2, 3, "Pocono" and "Paradise," in order that you may settle the question which does suit you best. We are furnishing the "Pocono" largely, and the demand is largely increasing. For the "Paradise" there is but a light demand, but it comes from experienced men. We also make a Special Class to suit the requirements of the AUTOMATIC SAW GUMMING MACHINES so largely used in the North-West.**

## THE TANITE CO., STROUDSBURG, PA. MONROE CO.,

# ST. CATHARINES SAW WORKS!




## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

**ST. CATHARINES, ONTARIO.**

## SAWS.

ALL SAWS FULLY WARRANTED

Sole Manufacturers for the Dominion of Canada of the

## "SIMONDS" SAWS.

☞ *All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*

# HARRIS, HEENAN & Co.

**124 AND 126 QUEEN STREET, - - MONTREAL.**

## Patent Stitched–Steam Power Pressure, Stretched–Oak Tanned

**TESTIMONIAL.**

IRA GOULD & SONS, CITY MILLS, Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

**TESTIMONIAL.**

PECK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., JUNE 15, 1885. NO. 12.


## PROPOSED SCHOOL OF FORESTRY.

In the English House of Commons on May 15th, on the motion for going into Committee of Supply,

Sir John Lubbock called attention to the state of forestry in this country, and moved for a Select Committee to consider whether, by the establishment of a forest school or otherwise, our woodlands could be rendered more remunerative. After pointing out that this was the only great country in Europe which took no notice at all of its national forests, he said this was a time when it was peculiarly desirable that they should have an inquiry of the kind he proposed; because, in the first place, the head of the Indian Forest Department was in this country at the present moment, and they might have the advantage of his co operation and advice; and secondly, because the Indian Office was at the present moment engaged in organizing the system of instruction of the Indian officials. He thought it would be very desirable to consider the whole subject before the Government made any arrangements that would apply to the Indian officials. If a well organized forest school was established it would afford a valuable nucleus in the first instance. He did not, however, wish to express any decided opinion in favor of the establishment of a Government School of Forestry. It was a subject for inquiry. Every one, he thought, would admit that they could not have a successful school without having access to a large tract of forest. It was almost impossible for private individuals to establish for themselves a satisfactory forest school, and it might be possible to render our national woodlands available to private institutions, so that young men might have the advantage of instruction in arboriculture.

Dr. Lyons, in seconding the motion, stated that total amount of woodland in Ireland was only 350,000 acres, being 45 acres less than in 1441. The amount of timber in England was infinitely below that which she ought properly to possess for the purposes of the natural protection of the soil, and for the protection of our herds and flocks. The question of our timber supplies was of the greatest agricultural, commercial and industrial importance to this country.

Sir H. Maxwell said that there was an immense quantity of money wasted just now in mistaken forestry operations. (Hear, hear.) No one who had spent any portion of his life in studying the subject could fail to be distressed in going through the country to see hundreds and thousands of acres of neglected woodland. (Hear, hear.) Considering the amount of private energy and self denial involved in the formation of woodlands, it was not too much to ask the Government of this country to recognize that, and to take steps to place within the reach of the public the best possible information on the subject.

Mr. Gladstone thought there was great room for improvement in the management of our woodlands, for there was a widespread and mischievous superstition against cutting down trees, and very few indeed understood how to cut down a tree. Everything was done too much at haphazard, and he thought the appointment of a committee might be of great advantage. But as to the establishment of a school he desired to keep entirely from any engagement.

Sir W. Barttelot, Mr. Ackers, Mr. Dawson, Dr. Farquharson, and Sir G. Campbell also spoke, and the motion for the appointment of committee was agreed to.

## PRESERVATION OF OUR FORESTS.

There are reasons entirely independent of economic value which make the preservation of our forests a matter of prime importance, and would make their ruin a national calamity. It is not that they have much influence on the rainfall. Those who hold that they do so mistake effect for cause. The rain produces the forest and not the forest the rain. A forest growth may not of necessity follow an adequate supply of moisture, but the supply of moisture is an indispensable condition of it. The utility of forests, aside from their marketable value, lies in their power, not to cause the rainfall, but to regulate its distribution. In this they are of incalculable benefit. When they cover the ground about the sources of great rivers and their tributaries, the porous soil, with its mosses and its accumulation of fallen leaves, acts as a vast sponge to retain and slowly deliver the water that falls from the clouds in the form of rain or snow. When the sheltering trees are destroyed and the ground is laid bare, all the water runs off at once; the brooks that had before flowed continuously and with comparative egularity become roaring torrents in spring and dry channels in summer, while the rivers that depend on these sources of supply swell into freshets at one season and shrink into insignificance at another.

The recent destructive floods in the north of Italy, and notably along the river Po, with all the misery they have brought, are ascribed, and no doubt with truth, to the partial denudation of the mountainous country about the sources of streams. The arid and comparatively valueless condition of certain parts of Spain is due to similar causes. It is for us to see, while there is yet time, that similar evils do not fall upon us. That wonderful region of the West known as the Great Divide, gives birth to the Missouri, the Yellowstone, the Columbia, the Colorado, and the North Fork of the Platte. The preservation of its shelterting forests is of vital interest to all the regions watered by these rivers. The same is true, in a different degree, of the sources of many lesser streams within our national territory. Sometimes, as in the case of the Hudson, the sources of the river and its whole course lie within the limits of one State, and the local government is therefore master of the situation. If New York should permit the Adirondack forests to be destroyed, she, and she alone, would be answerable for the consequences. But, in most cases, our great rivers rise in one or more States or Territories, to flow through or by the domain of others on their way to the sea. Here the State authorities are powerless, and if the remedy is to be applied at all, it must be applied by the Federal Government. Momentous interests are at stake, and the welfare of the whole nation demands careful consideration.— *Francis Parkman in June Atlantic.*

## COMMENCING BUSINESS.

"Never start until you are ready" is an old proverb, and we venture to think that if 50 per cent. of travellers and clerks who start in business as timber merchants, were to pay a little attention to this old adage, there would be less competition, fewer bankruptcies, broken hopes, and homes. It should be the aim of every man to improve his position, but we can recollect some cruel turns in fortune's wheel to young men who, having accumulated a little money or having had it "left" them, have decided to cease making a fortune for another and have started in business for themselves. It generally happens that these aspirants are good employes, and as such command fair salaries, but they have had no experience in knowing what it is to have plenty of debts on one's books, and plenty of bills to pay. There seems to be an idea among some men that they have only to fit up an office or stock a yard, and then orders will flow in, all of course for cash, and a round of prosperity, culminating in a fabulous fortune, will be the result. Unfortunately this does not generally happen. The few "friends" who promise to do their best for the new aspirant soon get used up, business does not roll in in an unbroken stream, bills are not paid promptly, and he has to wait an unconscously long time for his money. We have known such men, with plenty of money on their books, who soon found themselves in financial difficulties. And this kind of business soon tells, for beginners, as a rule take orders at the lowest possible figure, in the hope of building up a connection, and when they get it they either linger through years of mental misery and penury, or seek the relief which the Bankruptcy Court affords. Between bad debts, comparatively few good orders, and dull times generally, the business quietly dies out, and is quickly forgotten by all save the man who ventured his all in it. And he, broken in heart and pocket, becomes a wiser and a sadder man. No greater mistake is made by men of too little capital than starting in business. Here and there we have examples where men have been exceptionally lucky and have pulled through, but in many cases the struggler only goes through a brief period of hepe to a crushing disaster. And the worst feature of these small capital men is that they who, above all others, need a fair return for their goods, sell them at ruination prices, and when looked at from a sensible standpoint seem to invite the ruin they try to avert. This striving for business by working for less than a fair remuneration is productive of other evils than those it entails upon those who practice it—it tends to reduce prices all around, and to awaken suspicion regarding the credit of men who will meet their bills. Whilst we rejoice to see men from the ranks come to the front, we have no sympathy with those who start without looking fairly ahead, and trust to good luck to pull them through, or the Bankruptcy Court to lift them out of their debts and difficulties. One of the chief disadvantages that people with small capital have to contend with is that they are forced to buy on credit of the larger houses, then, in order to meet their engagements, they force trade and accept paper from people who are known to be untrustworthy. Some of the leading merchants in the West India Docks are well acquainted with all this, and yet the evil continues. Meanwhile the discount houses grow fat, because among the impecunious classes they get, instead of a fair rate of interest, something like 20 per cent., and when once in these bill brokers' hands, life becomes a perfect misery.

In conclusion, we are of the opinion that employes in good positions are often far more comfortably situated than their employers, and it is worse than folly to commence business without sufficient capital, relying on connections which rarely are of much solid benefit alone.— *Timber.*

## Durable Timber.

The durability of the framed timber of buildings is very considerable. The trusses of the old part of the roof of the basilic of a St. Paul, at Rome, were framed in 816, and were sound and good in 1816, a space of nearly a thousand years. These trusses are of fir. The timber work of the external domes of the Church of St. Mark, at Venice, is more than 840 years old, and is still in a good state. Alberti observed the gates of cypress to the church of St. Peter, at Rome, to be whole and sound after being up nearly 600 years. The inner roof of the chapel of St. Nicholas, King's Lynn, Norfolk, is of oak, and was constructed upwards of five hundred years ago. Daviller states, as an instance of the durability of fir, that the large dormitory of the Jacobins' convent, at Paris, was executed in fir and lasted 400 years.

## A NEW FEED FOR SAW MILLS.

We take the following description of new feed for saw mills from the Chicago *Northwestern Lumberman*, which, as will be seen by our remarks at the end of the article, are also manufactured in Canada by the Wm. Hamilton Manufacturing Co., of Peterborough :—

"Steam feeds have become so well known and are considered so indispensible in "every well regulated" saw mill, that any improvement in this direction will at once command the attention of every manufacturer of lumber.

"Herewith is presented an illustration of a new twin engine feed, which appears worthy of especial notice, and fully entitled to have its merits, as claimed for it by the manufacturers, examined. They modestly claim that it is the simplest, least liable to derangement, most easily and perfectly controlled, most economical in the use of steam, and the cheapest as well as best of all the steam feeds now in the market. The small model placed on exhibition at the exposition at New Orleans is said to have attracted more attention, and received more encomiums from visitors than any other single machine in the whole saw mill department there. It is the invention of Mr. Albert Cunningham, who also invented the famous "boss dog," and various other machines, all of which have proved eminently practical and successful.

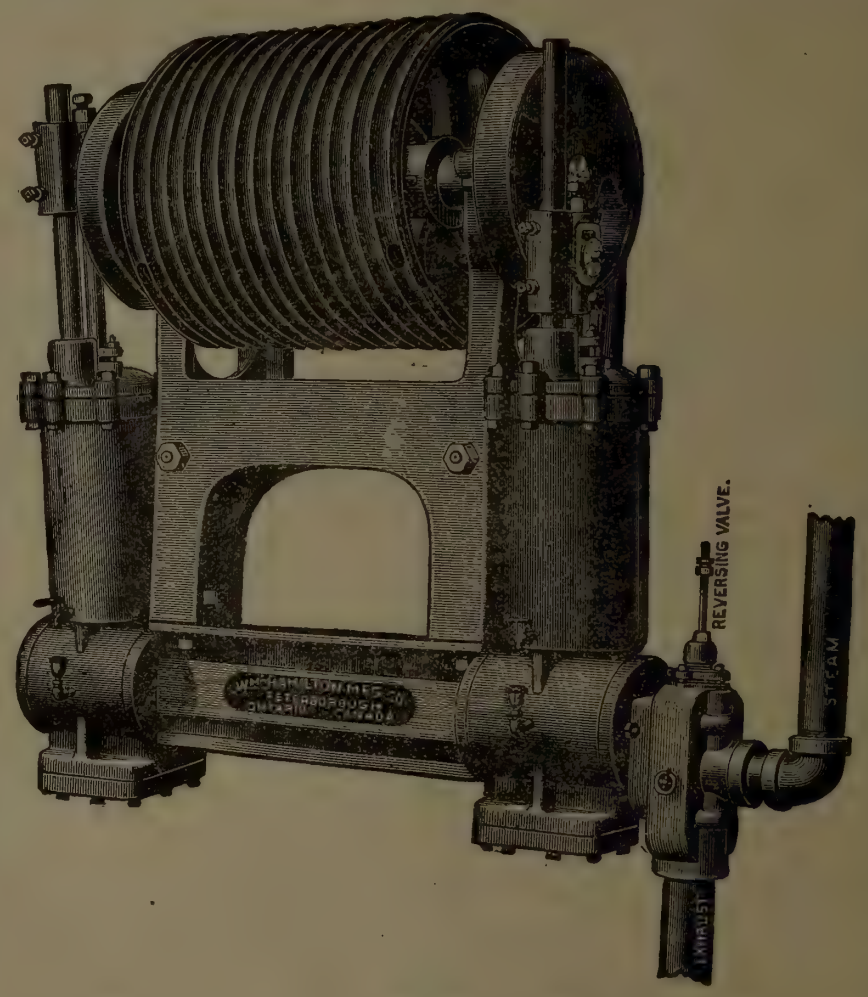
"It will be seen from an inspection of the cut, which illustrates a pair of 10x16 inch engines, that the matter of simplicity in engine construction has well nigh reached perfection, there being practically only two moving parts in each engine aside from the crank and shaft. The casting forming the lower part of frame projects at each side of the machine, and forms trunnions or pivots, on which the cylinders are vibrated. The cylinder castings being extended below the parts in which the pistons work, are bored out the receive the trunnions. The upper surface of the trunnions have steam ports communicating with two separate cored ways, passing completely through the central portion from end to end, and forming what may be termed valves. The cylinders have corresponding surfaces, which may be termed valve seats, working in contact with the trunnions, which are provided with suitable steam ports communicating with the ends of the cylinder. The crank-pin box is secured directly to the piston rod, and has a sleeve formed with it, which clasps and slides upon a guide bar which is secured rigidly to the cylinder head. Thus, as the crank revolves, the cylinder is caused to swing, and its motion upon the trunnion, in conjunction with the steam ports and steam passages in trunnion, effects the steam admissions and exhausts. It will be observed that the motions that accomplish this result are obtained directly from the crank-pin, which cannot possibly get misplaced in relation to these parts either through wear of parts or slippage. So when the parts have once been properly assembled in the shop their correct working for all time is assured, and a uniform and smooth working machine is made certain. By a novel and simple arrangement of the parts the pressure of the steam when working in the upper part of the cylinders and tending to separate their surfaces from the surfaces of the trunnions working in contact, this pressure is made to react on the lower cover plate in a manner to overbalance and retain the cylinder in place and maintain a tight working joint, and at the same time automatically compensate for differences of expansion or any wear of parts. Thus the usual expensive and complicated arrangement of eccentrics, yokes, valves, valve rods, valve fastenings, packing boxes, etc., and consequent lost motion arising therefrom, are entirely dispensed with, and precisely the same functions are performed by the single means above described.

"The starting, reversing, stopping and controlling the feed is all accomplished by the simple balance piston valve contained in the casing, shown in the cut at right of machine. The sawyer's lever may be attached by suitable connections from any desired location. This valve casing is interchangeable with the cap at the other end of trunnion, so that it may be placed in the most convenient position as to steam and lever connections.

"The machine illustrated by above cut has a rope drum 30-inch diameter by 30-inch face, and will drive carriage to saw a log 85 feet long. The drum can be made longer or shorter, to saw any length desired.

"Heretofore two sheaves have been used in connection with the drum ; one at each end of carriage way. But when the required movement of carriage is less, or a wire rope is used, permitting a shorter drum, so that it may be brought up between the carriage ways, it is advised that but one sheave be used, the rope drum taking the place of the other. Thus a much shorter line is used to produce the feeding movements of carriage, and there will be, therefore, less spring of line, and also avoiding at least one-third of the wear on the line due to the sheave which is dispensed with. By substituting a gear wheel for the rope drum, this feed can be applied to carriages having a rack and a movement secured, which is preferred by some to the rope connection.

"The manufacturers intend also to build these machines after a plan of a different proportion having a larger drum of much less force, more particularly for wire rope, believing that when thus applied, the former objection to wire rope, that they are not durable, will be done away.




The short life of such a rope is due to their being used, heretofore, on drums and sheaves much too small, as is abundantly proved where used in transmitting power over larger sheaves. A slower movement with larger engines using sheaves not less than five feet in diameter, will, in the opinion of the manufacturers, make the most durable, economical and perfect feed yet introduced. We had almost forgotten one principal claim for this invention which is that every ounce of steam is utilized, as none is admitted into the engines that is not used effectively. This style of engine it is thought will commend itself for its ecomony of construction, durability and simplicity for various other uses, such as running elevators, hoisting engines, etc., where a simple, easily reversible engine is required.

"The Filer & Stowell Company Cream City Iron Works, Milwaukee, Wis., are the manufacturers, who will give all other information desired, and quote prices on application."

MANUFACTURED IN PETERBOROUGH.

In addition to the above we might here state for the benefit of the lumbermen of Canada, that the William Hamilton Manufacturing Company, of Peterborough, are the manufacturers of the Cunningham steam feed for the Dominion of Canada. They, from drawings sent by the inventor, built, and had running in their shop this spring, the first of these engines, and before they had them got up in Milwaukee. They have shipped two of them this spring, one to Messrs. Playfair & Co., of Sturgeon Bay, with rope feed, and one to Messrs. Francis Carswell & Co's. new mill at Calabogie Lake, on Kingston & Pembroke railroad—(they also supplied them engines, boilers and all machinery for mill).—They are now building one for the Rathbun Company, of Deseronto, for their heavy timber mill. This one will work like the one for Francis & Co., with rack feed. Any other information can be had from the William Hamilton Manufacturing Company, Peterborough. Send for circular.

## POWER REQUIRED TO DRIVE MACHINERY.

"How many pounds of steam does it take to turn your engine over without the machinery at work ?" said one engineer to another recently. "Well, I don't know," he replied, "about ten, I suppose."

"I will wager," said the other, "you cannot pass the centre with less than thirty."

He looked incredulous. "To-morrow morning I will try it."

And he did so. He opened the throttle when the gauge showed 15 pounds, and the crank was on the dead half centre ; but the wheel never stirred. He waited a little while until the cylinder got hot ; he blew the condensed water out and tried again at twenty, but the crank never moved. At twenty-five pounds it made half a stroke, but stopped on the centre, and at thirty, after being pryed off the centre, it moved off slowly.

"I wouldn't have believed it," he said.

This was a high pressure engine, 12 inch cylinder, 30 stroke, working at a boiler pressure of 60 pounds to the inch. Half the pressure was absorbed in the friction of belts, shafting and machinery. This is not an isolated case. It is quite common, and few engineers are aware of the great loss daily incurred by simple neglect. It is not difficult to account for it when we reflect that in many shops it is accounted of no importance if shafting is out of line, or belts laced up so tight that bearings heat ; that it is of no moment whether the separate machines are in good order or not, and that one kind of oil is thought as good as another. To us it seems strange that men should be willing to pay tithes to carelessness, to waste means on nothing when money is so hard to get. It is certainly a small thing to line up shafting, and to look after the other details. In the matter of oil, it is a well settled fact that the purist is the best and cheapest, and that the use of cheap lubricants (so-called) is a mistake. Pure graphite, which is fast coming into use as a lubricant, is said to give very satisfactory results. Shafting that is in line will work without any binders on the bearings, for the belts serve the same purpose, and no cap is needed except a slight cover to keep dust out. By actual test with a dynamometer, Bourne gives the following work done by an engine of 23½ horse power ; two pair of stones four feet eight inches in diameter grinding wheat ; two of the same size grinding oat meal ; one dressing machine and fanner ; one dust screen, and one sifter. One set runs 35 revolutions per minute, the other 80. The oat meal stones run 120 and 140 revolutions per minute.

It also instances a cotton mill of 2,562 spindles, each making 2,200 revolutions per minute. The bobbins were 1⅞ inches long, the thread portion being 2 3-16 long. There were also five turning lathes, three polishing lathes, two bobbin machines, two saws—one 22 inch the other 14-inch—and 24 bobbin heads. When all the machines were off except the spindles, the actual power required was that of 21 horse, so that each horse power drives nearly 123 spindles. A small engine of ten inch bore, and 4 feet stroke, making 35 revolutions with steam at 90 pounds, drove two muley saws of 34 inch stroke, cutting 30 feet of yellow pine per minute, 18 inches thick.

The friction of a steam engine in good order is variously estimated at from five to eight pounds to the square inch. Of course, the proper way to find out the actual figures, is to take a diagram with the engine and shafting in motion and another with the engine alone, the difference of the two showing the effective pressure. Very few are will to take the trouble to do this, but go on grumbling at the high price of coal and the waste of fuel, when they alone are to blame for not keeping their machinery in proper order.

Another thing that is very generally overlooked by manufacturers is the selection of the best and most suitable engines and machinery for the work they have to do. This is very often left to some one who has no practical knowledge of machinery whatever, but may control a good deal of stock in the company ; or he may be a friend of some officer of the company lately graduated from a technical school, who knows everything about machinery, as all technical graduates do ; and there is no one a machinery builder likes to get hold of as well as one of those theoretical mechanics, as he can put off the most inferior workmanship on him, if it is nicely painted, and looks good, and has some new attachment on which he lays the greatest mportance, and without which the machine would be imperfect, when in reality the whole machine, attachment included, would not be worth the freight it would cost to take it to the factory, and the same with the engine.

He has read of some new design with several patent attachments, each one saving upwards of 25 per cent. of steam, so that with half a dozen of them he can run all his machinery without any steam or boiler, and some generated for heating his shop and steaming his lumber, but when these machines and engine come to the practical test of doing the work, all those improvements are found to be worse than useless ; they are an actual injury, and will need the care of a machinist continually to keep them running at all, until the company get their eyes opened by having their rival in the same business turning out 50 per cent. more work with less men. Then the machinery has to be all changed in order to be able to compete with those others that had their machinery selected by a thorough, practical mechanic, that didn't know a word of Greek or Latin, or that such men as Archmedes or Eusted ever lived.—*American Wood-Worker.*

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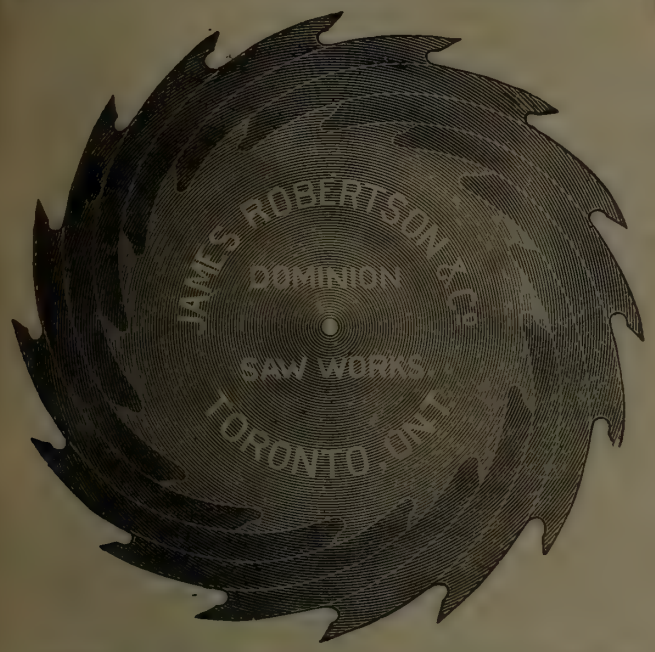


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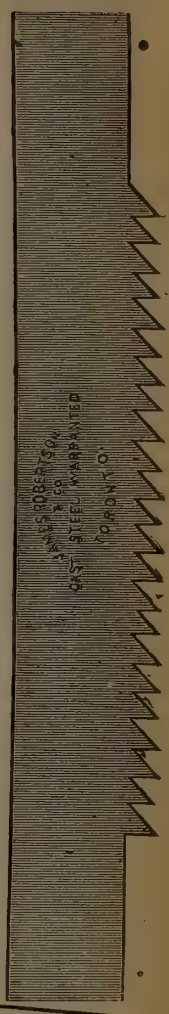

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### RULES FOR THE MANAGEMENT OF STEAM BOILERS.

1. Condition of water.—The first duty of an engineer when he enters his boiler room in the morning is to ascertain how many gauges of water there are in his boilers. Never unbank or replenish the fires until this is done. Accidents have occurred, and many boilers have been entirely ruined from neglect of this precaution.

2. Low water.—In case of low water, immediately cover the fires with ashes, or, if no ashes are on hand, use fresh coal. Do not turn on the feed under any circumstances, nor tamper with or open the safty valve. Let the steam outlets remain as they are.

3. In cases of foaming.—Close throttle and keep closed long enough to show level of water. If that level is sufficiently high, feeding and blowing will usually suffice to correct the evil. In cases of violent foaming, caused by dirty water, or change from salt to fresh, or vice versa, in addition to the action before stated, check draft and cover fires with fresh coal.

4. Leaks.—When leaks are discovered they should be repaired as soon as possible.

5. Blowing off.—Blow off eight or ten inches at least once a week; every Saturday night would be better. In case the feed becomes muddy, blow out six or eight inches every day. Never blow entirely off except when boiler needs scraping or repairing, and then not until fire has been drawn for at least ten hours, as boilers are often seriously injured or ruined by being emptied when the walls are hot. Where surface blow cocks are used, they should be often opened for a few moments at a time.

6. Filling up the boiler.—After blowing down allow the boiler to become cool before filling again. Cold water, pumped into hot boilers, is very injurious from sudden contraction.

7. Exterior of boiler.—Care should be taken that no water comes in contact with the exterior of boiler, either from leaky joints or other causes.

8. Removing deposit and sediment.—In tubular boilers the hand holes should be often opened, and all collections removed from over the fire. Also, when boilers are fed in front and blown off through the same pipe, the collection of mud or sediment in the rear end should be often removed.

9. Safety valves.—Raise the safety valves cautiously and frequently, as they are liable to become fast in their seats, and useless for the purpose intended.

10. Safety value and pressure gauge.—Should the gauge at any time indicate an excessive pressure, see that the saftey valves are blowing off. In case of difference, notify the parties from whom the boiler was purchased.

11. Gauge cocks, glass gauge.—Keep gauge cocks clear, and in constant use. Glass gauges should not be relied on altogether.

12. Blisters.—When a blister appears there must be no delay in having it carefully examined and trimmed, or patched, as the case may require.

13. Clean sheets.—Particular care should be taken to keep sheets and parts of boilers exposed to the fire perfectly clean, also all tubes, flues, and connections well swept. This is particularly necessary where wood or soft coal is used for fuel.

14. General care of boilers and connections.—Under all circumstances keep the gauges, cocks, etc., clean and in good order, and things generally in and about the engine and boiler room in neat condition.

The above rules are those adopted by the Hewes & Philips Iron Works, Newark, N. J.—*Mechanical and Milling News.*

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SAYS the Montreal *Gazette*:—Our Quebec correspondent telegraphs on May 30th, the following sales took place to-day: Bryson's raft, about 55 feet average square pine, with a quantity of waney, at about 26c.; Klock's raft, upwards of 60 feet average square pine, with a quantity of waney, at about 30c. Both are large rafts.

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### The Morning Dress.

It is said that a lady's standing in society can easily be determined by her dress at the breakfast-table; an expensive, showy costume, indicating that the wearer has not yet learned the proprieties. But no one need be afraid of being called "shoddy" if her loveliness is as apparent by daylight as at the hops. Perfect beauty is never the attendant of disease; above all, of those diseases peculiar to women, and which find a ready cure in Pierce's Favorite Prescription. Price reduced to one dollar. By druggists


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## THE WATERSHED OF EASTERN ONTARIO.

The following is from Mr. R. W. Phipps' annual forestry report, published by the Ontario Government, and continued from our last issue:

Starting from Lakē Nipissing, we find we must climb on the engine to travel along the line newly built. Passing on a little way, we see terrible evidences of fire. Here for miles, far as the eye can follow, is nothing but the bare upright whitening trunks of great dead pines surrounded by worthless brushwood. The pine is of little use after a fire—the worms attack the trees at once, and destroy them before the lumbermen could attempt to save them. Much valuable timber has been lost here. Arrived at the terminus, which, to save cutting, is seventy feet above the water, the southeast bay of Nipissing, stretching broad between its wooded banks, its surface dotted with islands of picturesque beauty, lies before us—the great expanse of water dark and tossing green below—the evening sun touching island and forest edge with gold above. Here, from the mass of logs, acre broad, which float far below us, comes a spiked chain running in the bottom of an inclined trough 140 feet long. Towards this the logs are pushed by a pike-pole, they lie on the spikes of the chain, are carried along, and come up one after another, a string of black and wet-looking monsters, reaching from water to summit. Here they will be loaded directly on the cars, and, the five miles of railway past, they can float down the Ottawa.

Descending to beach, the foreman and myself enter a little green skiff and embark on Lake Nipissing, where, three miles along the shore, we are to see a lumber camp just in process of formation. Neither the oars nor the boat are of artistic formation, but the boatman is powerful, the boat flies across the blue waters, and reaches a beach of white sand and covered with stunted poplar and balsam. Here, on a green bank of some height, a space has been cleared, half a dozen tents pitched, trunks, luggage and tools lie all around, and the ubiquitous French cook, his big fire and big kettles, are at work as usual *al fresco* in the centre. This stunted bush is rising on the burnt ruins of a once magnificent pine forest. From here to the far distance there is little but *brule*, the poplar undergrowth, the innumerable lofty trunks of dead and worm-eaten pine. (This low poplar, it may be remarked, is of the aspen kind, and the whole yellow landscape of innumerable acres trembles and flutters in the lightest summer air.) The fire which swept the country here has, however, spared some thousands of good pine trees in this immediate neighborhood, and the object of the camp is to secure those which are sufficiently large. We walk a mile to the rear, and watch the process of erecting the lumber shanty. They have erected, of inferior or worm-eaten pine logs, four walls eight feet high, and are now roofing it with what are called scoops—trunks of pine trees flattened and hewn into troughs, a double layer of which, the upper layer inverted to shed the rain into the lower, forms the roof. Six stalwart choppers are cutting the grooves in these, while every now and then along the track into the bush comes a horse at full trot, his driver running by his side, a fresh flatted log of white pine dragging smoothly on the ground behind him.

Opposite the main shanty will be others for stables and stores, and in a few days the men will be in one, the horses, provender and tools in the others, and the winter work of getting out logs will commence in earnest. What is principally noticeable to the forester's eye in the whole operation is the quantity of tree tops and chips left everywhere on the ground where trees have been felled, thrown everywhere to right and left where roads have been cut already, when work is scarce begun. We again take our skiff and return to our railway terminus, as the shadows deepen over Lake Nipissing. Here we see Mr. Booth, the brother of the senior partner.

We stay here all night, and in the morning by rail, and boat, return to Callender station. Next day we drive a circuit of some miles round Callender, and find settlers located in pine forests, or so near them that one fire is pointed out as having burnt this summer a length of five miles, broadening so as to include the pine strip in which it was running, but stopping at the hardwood, as is often its manner. Three fires, of which I saw the remains, have occurred in the parts of Mr. Booth's limits supervised by Mr. Cahill this summer. Many thousand dollars' worth have been lost here. Nothing is more pitiful than the aspect of these burnt forests. The pines are spectres—the soil is burnt—all is gone. What is worse is, it goes to obtain so little. The whole farm which is obtained by the burning will seldom give $50 rent a year for many years.

The next stage is to the north shore of Lake Nipissing. We stay at Sturgeon Falls, and I see Mr. Mackey, who holds extensive limits here.

At the village of Sturgeon Falls, a small collection of new pine houses rising in all directions among a mass of stumps, surrounded by a low forest of balsam and cedar, the stream falls in a succession of small and picturesque cascades. It is now all cleared land here, but this must, when untouched forest, have looked inexpressibly beautiful. Far removed from the sounds of labor, or even the presence of civilized man, a lofty and secluded forest bordered either bank. It was a place where the Genius of the River might have been fancied descending these white and foaming steps overarched with sylvan green. Now, it is a stream falling over some ridge of rock, with a couple of sandy fields on each side.

In a bark canoe, paddled by a boatman at either end, all day long I go up this stream, passing many a mile of forest, yellow with approaching fall, dropping their overhanging leaves into the waves along which our canoe glides, silently, easily, but so slowly as ever to bring longings for the cedar skiffs of Toronto Bay, their rattling rowlocks, the long sweep of their oars, and their treble speed—passing many a clump and stretch of valuable pine, darkening tall against the sky—many a great cliff of overhanging granite, its summit one hundred feet above; its lofty crags disjointed and threatening to fall, but all, firm and loose, covered high with pine, spruce and cedar, growing apparently from rock alone, their roots deep in crevices, their shafts swaying in the fierce winds that sweep along the cliff, but holding tenaciously their place—passing, too, many a long stretch of burned land, where innumerable whitening spectres of former pine trees fill the scene from the river back to the distant horizon—an interminable array of ghastly trunks above, a mass of tangled brush below, red and yellow with the colours of autumn. Ths roar of rapids is heard ahead, and presently here is a good opportunity of seeing one method by which lumbermen pass these obstructions. Here is a long embankment of high rocks extending diagonally across, over which the river used to plunge at two points close to either bank. Mr. Mackey, on whose limits we now are, has built all along three-fourths of this ledge a. mass of crib work of heavy logs, faced against the current with a great sheeting of other logs, smooth and flat, stand on the river bed and leaning against the crib work. This, which is 200 feet long, closes up one opening, and runs the river, and, of course logs in the driving season, over the other. Over this the whole mass of the Sturgeon river now goes with terrific force. Even yet this fall is divided—one half—that farthest from you as they stand on shore—falling perpendicularly—the other rushing down aslant—a bright green darting mass against the white foam beyond—as if a great sea monster sprang perpetually through an eternal cauldron—both together falling into a boiling gulf, rising and falling into white cataracts again, till it tears its way past the enclosing rocks, and forms again the quiet river below.

Up this cataract somehow we must get, and now we see the superior points of the bark canoe. I walk along the bank past the falls—the two men easily shoulder the boat and follow, and in the calm river above we embark again, and pursue our way up the stream, till, some miles further, we reach the Smoky Falls, so called from the vast mass of vapor which overhangs them. This fall is of unique beauty. Over high rocks, diagonal, as the other, across the river, the level torrent pours, falls in mass on a great projecting shelf not far beneath, and is thrown outward—a giant whirling semicircle of foam, falling full below, still confined by another shelf of granite crossing the river bed, and boiling white and over it to the depths beyond, across which, beneath sun, a bright rainbow ever glows—the whole accompanied by a volume of sound scarcely imaginable.

Other sounds, however, rise above it as we look—a perfect uproar of yelling and scraping on the hard rocks—and here are a large party of lumberers, as many as can cling on all sides of a forty foot boat and pull it with ropes ahead, dragging it by main force over the portage—here a hundred feet rise and fall of solid rock. One of them hurriedly hands us a letter to post, and away they go screaming in French, shouting in English, down the mountain side, to embark again for their winter camp high on the banks. Here on this beach lie all the trunks, barrels, conspicuous are monster ones of molasses—tents and blankets, axes and augers—a mass of material ominous to many a grove of giant pine whose branches the north wind, their visitor for over two hundred years, shall shortly know no more. But we must retrace our steps. On our way back we examine a lumber camp of last winter. It is reached by a path from the water's edge up a gulley to the level. Here is th scene of square timber "getting out," and it shows but too well how much is wasted. Here lie many great logs of good pine, three feet through, spoiled by deep cuts made to see if the heart was sound, without which it would not answer for squared timber, though quite good for sawing purposes. Here are short ends—nine, eight, seven, and four feet, in multitude, cut off to leave a sound stick, left to rot, though excellent for board, lath and shingle purposes. And here, above all, is such a compound mass of heads of trees, lying with their branches drying in the air, acres of them nearly, strewn through the woods—such piles on piles of chips and rubbish as to leave no doubt of the inflammable nature of lumber *debris*. The lying timber in the untouched forest is not so. We advance into it, near by, where no trees have been cut. What is here is not equally dangerous. All is more or less covered with moss or damp. Ignition would be here difficult—there very easy.

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From these notes of the preceding journey, some idea will be had of the scenery and surroundings, among which the lumbermen carry on their hardy trade. It would, however, take years to visit, in the manner sketched, all the lumbering regions of Ontario, which are wide stretching and often difficult of access, while the men employed in procuring and sawing the timber form many small armies of no insignificant numbers. It is not uncommon for a lumbering firm to employ from a thousand to fifteen hundred men, and there are many firms. These men will be under the charge of perhaps half a dozen foremen, who will each have his district, his depot for supplies, and his shanties erected at the numerous points where his men are chopping, such as we have seen them some pages back. Winter and summer, throughout immense territories, along a thousand rough-hewn roads, up a thousand streams, supplies are pushing their arduous way to the lumber camps, with, as Horace says, "what toil of men, what sweat of horses," can scarcely be conceived. All winter the axes resound, the pine trees fall at a million different points, and all summer again great argosies of logs float to Quebec to await shipping for Europe; or, stopping at Ottawa, or some inland point, are sawed, distributed through Canada, or sent to States.

In the tour previously partly sketched, (for of course many places were visited, and many opinions obtained, besides what space would allow to quote) I found that two suggestions seem to have presented themselves to the minds of all who considered the question of preserving our fine forests. First, increasing the number of men employed in summer to watch the forest and prevent fires. Next, the setting apart of a portion of teritory for forest exclusively.

After placing myself in communication with those best acquainted with the localities, I have obtained the following opinions, which appear unanimous, namely:—That there is but one territory in Ontario south of Lake Nipissing where the last scheme can be carried out, which is a part of the Nipissing District, where there are between twenty and thirty townships with few or no settlers. There are also there valuable pine forests. Speaking also from a forestry point of view, irrespective of the lumbering interest, I should be glad to see this portion kept in forest, as it is one of the chief watersheds of Ontario, and nourishes many streams flowing north, east, south and west, which, of course, are of great value to the cultivated areas through which they flow. Mr. Russell, of Pembroke, Crown timber agent for the region, defines it as "Commencing at township No. 2 of Nipissing—Elora, Maria, Head, Rolph, Wylie and McKay in Renfrew, extending west to townships Laurier, Paxton, Butt, Hunter and Peck, inclusive." If settlement at any bordering point has made progress, which cannot be to any great extent, the reserving line could be drawn to suit it. Much of the region is unfit for agriculture, but would be very valuable if kept in forest.

It appears to me that throughout the whole country visited, as well as, from report, many parts adjacent, settlers are too apt to locate themselves on soil unfit to be of lasting value for agricultural purposes. It is evident that if this could be checked by directing these men to better and separate localities, it would tend greatly to reduce the number of forest fires, for settlement necessitates the use of fire in clearing, and, especially when at all carelessly managed, the fire is too likely to get beyond control, and spread far into valuable timber. Such men as were retained in summer to watch fires could, I should think, in certain localities, being themselves well acquainted with the country, direct settlers to proper sections, and act in conjunction with the Crown land agent in charge. It has been suggested, also, that if settlers who set out fire were obliged to give their neighbors notice, proof could then always be obtained as to whether it was done carefully or not. The general opinion is that lumbermen, settlers and sportsmen are alike too often careless in the use of fire, and that some measure should be taken to enforce the provision of the Fire Act by all. This, and the suggestion concerning a reservation of land in the Nipissing District, are the two measures I consider needed, as far as the country south of Lake Nipissing is concerned. It is important that some steps should be taken in the matter, as the loss by fire is very large.

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## AUSTRALIA.

The monthly circular of Messrs. Lord & Huges' dated Melbourne April 2nd, says:—

Since our last circular, dated 11th ultimo, we have to report moderate offerings of all descriptions of timber at auction, and the demand has been met by importers at about prices ruling at date of last circular; imports have been on a liberal scale, and have fully met requirements.

Deliveries from the yards have been regular and large, and the trade generally is in a healthy condition, demand still continues for building purposes, while building allotments at the various land sales are sought after eagerly, the indication of which is continuation of building operations.

RED DEALS.—Imports: 255 standard, 13,250 pieces from the Baltic. The arrivals have been Gevalia from Hudiksvall, and Veritas from Gothenburg. There have been no public sales since our last advice. Stocks in first hands are heavy and sales difficult to effect.

SPRUCE DEALS.—Imports: 179 pieces spruce, 2,412 pices Baltic white. Arrivals have been—Ariadne from Boston, and Veritas from Gothenburg. On the 26th ult. the cargo ex Lake Leeman was all sold by auction, 9x3 spruce realizing 2⅞d. per foot running of 9x3; 11x3 red pine at 3½d., 9x3 at 3½d. to 3d.; the only other sales being parcels ex Haroldine and Penobscot, 9x3 spruce at 3d., 11x3 at 3¼d., and 3 7-16d. per foot 9x3.

OREGON TIMBER.—Imports: 1,351,637 feet super. The arrivals have been Dunstaffnage, Nehemiah Gibson and Fleetwing; the cargo ex Dunstaffnage comes to the order of one of the trade, and goes into yard for consumption. The only sale by auction has been cargo ex Fresno on 20th ult., at prices ranging from £6 7s. 6d. to £5 15s.

LUMBER.—Imports: Clear pine, 303,126 feet

super.; white pine shelving, 286,529 feet super.; T. and G. ceiling, 143,313 feet super. The arrivals have been Mabel Taylor and Richard Parsons, from New York, and Ariadne from Boston, besides small parcels ex S. F. Hersey and Jupiter; late prices being fully maintained for best qualities.

REDWOOD.—Imports: Nil.

FLOORING AND WEATHERBOARDS.—Imports: 2,272,680 feet lineal. The arrivals have been Bonheur from Frederickstadt; Port Chalmers, from Glasgow. Sales by auction have been ex Zenobia, Java, Schwanden, Wilhelm, Ole Moller Waaland and Regina, at following prices:—Red 6x1⅛, at 10s. 6d.; 6x⅞, at 8s. 3d. and 8s.; 6x¾, at 5s. 9d.; 6x½, at 5s.; 4-out weatherboards, at 6s.; white 6x1⅛, at 8s. 3d.; 6x⅞, at 8s.; 6x¾, at 5s. 9d.; 6x½, at 5s. and 4s. 11d.; 4-out weatherboards, at 6s. 3d. and 6s.

KAURI PINE.—Imports: 609,419 feet super. Arrivals have been Defiance, from Kaipara; Killarney, from Russell; Kentish Lass, from Hokianga, and Orsen, from Hummock Island, the latter bringing further instalments from wreck of Robin Hood. Sales by auction have been made of cargoes ex Louise, sawn boards, flitches, shelving and flooring; and logs ex Jules Marie, the last mentioned being taken in one line, at 12s. 9d. Other sales have been ex Claribel and Mercury.

CEDAR.—Imports: 137,900 feet super. Arrivals have been per May Newton, from Ballina, and usual coasting steamers.

DOORS.—IMPORTS: 155.

LATHS AND PICKETS.—Imports: Laths, 8,979 bundles; pickets, 19,714 bundles.

SLATES.—Imports: 449,300 pieces. There have been no auction sales since our last.

PLASTER.—Imports: 300 barrels:. The only public sale has been of portion ex Penobscot, Albert Mills plaster, large barrels, at 13s. per barrel.

CEMENT.—Imports: 9,873 barrels. There is no alteration to report since our last, and no sales have taken place by auction.

GALVANISED IRON.—Imports: 1,539 tons. No sales by auction. Privately, quotations range from £20 to £18, according to brand, size and parcel.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3; T. and G. flooring at per 100 feet running; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 feet super; Kauri pine and cedar logs at per 100 feet super; laths, pickets and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

## ANOTHER USE FOR PAPER.

*Popular Science News* says:—One of the most remarkable uses to which paper has been put of late years in the manufacture of zylonite, a substance which, at the will of the manufacturer, may be made in imitation of horn, rubber, tortoise shell, amber, and even glass. The uses to which zylonite is adaptable are almost infinite, but perhaps the most extraordinary is the manufacture of cathedral windows. The discovery was made by an Englishman named Spills about 15 years ago, but it was only about five years ago that a company was formed in London for its manufacture.

The basis of the zylonite is a plain white tissue paper, made from cotton, or cotton and linen rags. The paper being treated first with a bath of sulphuric and other acids undegoes a chemical change. The acid is then carefully washed out, and the paper treated with another preparation of alcohol and camphor. After this it assumes an appearance very much like parchment. It is then capable of being worked up into plates of any thickness, rendered almost perfectly transparent, or given any of the brilliant colors that silk will take. It is much more flexible than either horn or ivory, and much less brittle. Combs or other articles made of it, in imitation of tortoise shell, are said to be so perfect in appearance as to deceive the eye of the most practiced workman in that substance.


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## ARBOR DAY.

RESPECTFULLY INSCRIBED TO HON. H. G. JOLY.

While summer tints the spring's pale cheek,
And nature blushings greets the change,
While zephyrs kiss the buds and seek
Some leafy grove wherein to range,
Care smooths the furrows of his brow
And mirth entwines her garlands gay—
O'erjoyed as beauty's charms endow
All things to keep sweet holiday,
Then ring the echoes round our homes,
Born on the breath of blooming May,
As noonday laughs when summer comes
To ring in Arbor Day.

Shrined in a wreath of forest green
The woodman built his humble home,
When fortune smiled, a dubious queen,
And Flora frowned, an unkempt gnome;
But now 'tis ours to claim the shade
Our fathers toiled to drive away--
To bring the saplings from the glade
And plant perennial holiday.
Then ring the echoes through the land,
Borne on the breath of blooming May,
As summer brings us sweet command
To ring in Arbor Day!

The glebe, reclaimed by anxious thrift,
Demands a crown with parched breath;
Through dust the highway seems to sift
A sigh for shade across the heath;
The sun-burnt pavement of the street
Reflects a prayer in every ray
For shelter, where the townsfolk meet
To welcome summer's holiday.
Then ring the echoes through the town,
Borne on the breath of blooming May,
As men and maidens summer crown
And ring in Arbor Day!

* * * * *

Around our homes the twilights steal
To bathe the elm and maple leaves,
Beneath their silver foliage we feel
How eve for us its solace weaves;
For now the pleasure-toil is o'er,
Our acorns grown hope-fears allay;
The arbor planted near our door
Embow'rs life's dying holiday.
And sweet the echoes fill our hearts,
Borne on the breath of time's decay;
The past is ours, though youth departs
To ring out Arbor Day.

*—J. M. H., in the Quebec Chronicle.*


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Procrastination may rob you of time, but by increased diligence you can make up the loss; but if it rob you of life the loss is irremediable. If your health is delicate, your appetite fickle, your sleep broken, your mind depressed, your whole being out of sorts, depend on it you are seriously deseased. In all such cases Dr. Pierce's "Golden Medical Discovery" will speedily effect a genuine, radical cure—make a new man of you and save you from the tortures of lingering disease.

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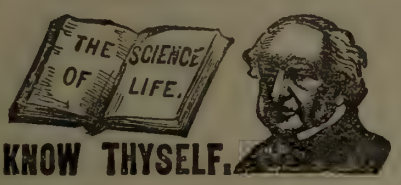


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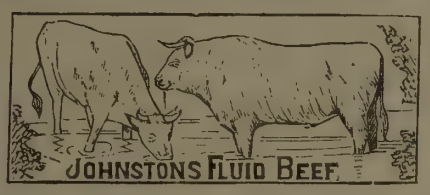


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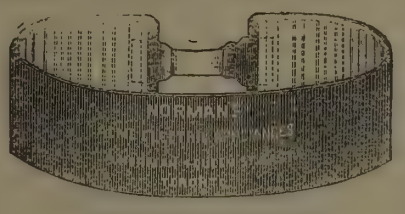


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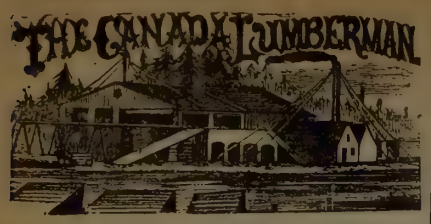


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

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*PETERBOROUH, Ont., JUNE 15, 1885.*


LOGS to the amount of 50,000,000 feet are to be transported by railroad from Baldwin to Whitehall, Mich.

CAMERON, who runs the Rolling River, Man., saw mill, intends starting one in Mennedosa.

THE Shaw tanneries at Waterloo and Warden, Que., will not be started again, for want of bark in the neighborhood of the respectire places.

THOMPSON'S planing mlll, Buffalo, and about one million feet of lumber at Black Rock were burned June 3rd. Loss, $50,000.

THE average price paid for sawing lumber at Manistee, Mich , is $1.75 for piece stuff when dumped on the dock, and $2 when cross-piled.

A FIRE on Rosebud river, Montana, May 28, consumed a large amount of valuable standing timber.

JAMES ABBOTT and James Lee, of Geneva, Van Buren County, Mich., cut and piled 50½ cords of beech and maple wood in six and one-half days, or over four cords each for every day.

ON May 27th, near Blanchard, Mich., Dwight's shingle mill was burned by forest fires, together with several other buildings. Shingles to the amount of 100,000, and logs enough for 3,000,000, were burned.

BY late forest fires in Fruitland, Muskegon county, Mich., several thousand cords of wood and a great deal of fence were destroyed, besides much standing timber. Among the losers of wood were Aug. Wixtrom and I. Collins.

A CARGO of 103,000 feet of pine lumber was received by Dole & Fogg yesterday, from St. John, N. B., says the Bangor *Whig* of 26th May. The importation of pine lumber from a foreign port is something very unusual.

## REPLACE SOME OF THE TREES.

*To the Editor of the Canada Lumberman.*

SIR,—Perhaps you will allow me a space in your valuable columns for a few words on a matter undoubtedly very important, I mean the necessity which exists for immediate action concerning the preservation of a proper amount of forest throughout the country. As yet, the remains of the old forest, existing in small or larger portions everywhere, have prevented us from feeling the full extent of the evils which a few years will undoubtedly bring on us, if general action be not soon taken. For only in a very few parts of Ontario is care taken to preserve these portions of forest. In most of them cattle are allowed to wander in such numbers as must ultimately destroy the trees. They eat down the young saplings, let the sun in on the roots of the older trees, let the drying winds blow through, and the complete destruction of the woodland, that deprived of the means of reproduction, is only a question of time.

In those sections where even the last portions of forest have almost vanished, the ill effect is already becoming very apparent. Not to speak of the loss of shelter, the injury done in the matter of rainfall, which it is one function of forests to distribute equally, is very great. An old resident near Lake Erie, writes that the forest in his locality being all gone, they can plainly observe that the moisture, rising from the lake, no longer falls as it once did, in frequent and beneficial summer showers, but is carried over further inland, where it falls in heavy torrents which sometimes by force of weight and volume do as much harm as good. From many such indications it is plain that no further time should be lost in attending to the preservation of our trees. Several ways in which this might be attempted may be mentioned.

1.—Whoever yet possesses some portions of forest in good order should by all means rigidly exclude cattle from any part thereof he can spare to remain as forest.

2.—Rows of evergreens, pines, spruce, cedar, etc., should be planted from two to six feet apart, along the north or exposed sides of every farm. They can be planted in early June or August, and should be planted as soon as they are dug. If the roots dry they die. Choose small trees.

3.—Some fresh plantations of forest trees, acres in extent, along the north, of farms would be far better than the evergreen rows. An excellent way of getting well-rooted young trees, is to go to the forest in June, cut circles around young trees, say nine inches from the tree, and cut large tap roots a foot or more deep, then leave them till fall, by which time many small roots will have formed inside the circles, and the tree be far more certain to grow when transplanted then. They shouid be planted in numbers, say four feet apart each way, the ground kept lightly stirred for a year or two, and after that, if mice and cattle are kept away, they will do without care. Or if you do not object to waiting longer, it is easy to get seed and grow the young trees, which, transplanted twice will then have plenty of roots.

There is another reason, besides climate and shelter, for doing these things. Wood is getting very scarce, and in a few years he who has a good plantation of hickory, oak, elm, cherry, ash or other good wood closely planted, and growing as then they will to high, straight sticks of clear timber, will be regarded as one who is coming into a small fortune—but the work should not be put off.

Yours, &c.,
R. W. PHIPPS.

Toronto, June 9th, 1885.

## PROGRESS IN LUMBER PRODUCTION

In no business is so much advancement being made as in the mill business. The roller process flour bears ample testimony to the progress in this direction in flour mills, but it is only one feature of scores which might be mentioned to demonstrate the onward march of the modern flour mill. We believe it a safe assertion that there is no other class of manufacturers more enterprising in this direction than the average saw mill man; at least we can say it with the utmost confidence in regard to those operating on the Saginaw river. If there is any new invention which promises a single advantage in lumber production, or a saving in the wear and tear of machinery, or any labor saving machine or implement which may be advantageously utilized in a saw mill, it has only to be presented to the average Saginaw river saw mill man, and its merits demonstrated, even theoretrically, to recieve recognition, and practical application. Hence our statement in in the outset, of the advancement in modern milling, especially saw milling is susceptible of being fully sustained.

When one remembers the primitive whip-saw and its tedious and laborious methods, worked by two men, one above and the other beneath the timber to be divided into strips, which was considered a wonderful implement in the distant past, and which is even yet utilized in many ship yards, and take one single step to the modern circular with its capacity of from 50,000 to nearly 100,000 feet of well sawed lumber per day, the transition is wonderful, and seems almost incomprehensible to those not identified with the business. After the whip-saw came the muley, which for many years was considered the acme of lumber producing implements. Its sway for years was nndisputed, and its reputation stood triumphant and supreme. But man's increasing necessities, made advancement in lumber production imperative, and time being considered money by the American mill owner, any device which has the merit of labor-saving is eagerly siezed and receives the practical application; hence the American saw mill in these modern days is really the pioneer in improvement, so far as machinery is concerned. And so rapid has been the advancement that steam and modern machinery now absolutely take the log from the mill boom, pass the same to the saw, and converts it into lumber, conveying the product to the hands of the pilers, with a single circular saw as the producing medium, at the rate of from 5,000 to 8,000 feet per hour.

The circular saw at present stands at the head of lumber producing machinery, although the band saw is now contesting for supremacy; and in view of the advancement of the past who will dare to assert that the former will not in the future be relegated into banishment, as wanting in the qualifications which serve to meet the demands of the modern saw mill. But the saw alone with its wonderful productive capacity would be ussless considered alone, without the endless appliances which necessity and inventive genius has produced as aids in the form of mill dogs, trimmers, slab cutters, endless chain haulups, steam log decks, live rolls, butting saws, steam carriages, lath mills, bolters, stave and lath machines, and an innumerable list of other appliances, which serve to make up the necegsary outfit of the saw mill of the present time. Truly tke progress in the work of lumber production, and in the advancement in mill machinery has been beyond the comprehension of those not interested in the business, and must be seen to be appreciated; and an examination of a modern saw mill with its productive capacty of from 200,000 to 400,000 per day, when all its ramifications are set in motion, or utilized, is one of the most wonderful sights of the times.—*Lumberman's Gazette.*

## TYNE

The *Timber Trades Journal* of May 30th says:—The Whitsuntide holidays occurring this week have again interrupted the usual tide of business, extending as they do over in every case two whole days, and in some places, where trade is quiet and repairs needed, to more. A few vessels have arrived from Baltic and south of Sweden and Norway, and the usual Gothenburg and Christiania traders are also to the fore, but the amount of imputation is not very large, though apparently large enough for the limited demand. The fever of speculation bred by the war scare appears to have quietly passed away, and prices have now fallen to their normal condition; a good deal had been sold for arrival, and many merchants bought cargoes at the flood-tide, and will doubtless have to submit to a sacrifice in selling.

There is no improvement to note in the shipbuilding trade. Some yards have secured a few orders, and some Government orders have been placed on the river, but all combined are not of sufficient importance to make any tangible improvement. This will cause a weaker demand for American goods during the present season, and, in spite of the higher prices demanded by Quebec shippers, there appears a good deal of difficulty in placing goods for arrival even upon old figures.

## GLASGOW.

The *Timber Trades Journal* of May 30th says:—There have heen no arrivals of Quebec deals here yet, but imports are daily expected per steamer. The first of the season had come to hand earlier than this last year. The passage of vessels in the Atlantic at present appears from reports to be hindered and made unusually dangerous by enormous masses of ice that are met with, and in most unlikely latitudes. The wood goods which the vessels now due may bring will be welcomed, as old stocks are about exhausted.

The first arrival of birch to Clyde this year has just come in per the Luis A. Martinez, a cargo of Pictou birch now being discharged at Queen's Dock, Glasgow, and which contains wood of varied dimensions, comprising a number of large squares. This will be a matter of great interest to the trade, the market presently being bare of birch timber. It is to be brought to sale, we learn, on an early day.

A small cargo of Namsos staves and battens is the only arrival at Greenock to note during the past week. There have been no auction sales to report. At the last Dean of Guild Court held here there were as many as twenty-six applications for linings for new erections, but the bulk appeared to be made up of alterations and additions. Still the consumption of wood going on is considerable, and this being Whitsun term a large number of workmen are employed to have property in order for tenants.

## RAFTS ARRIVED.

The Quebec *Chronicle* says that the following rafts have been entered at the Supervisor of Cullers' Office, Quebec since May 1st:

King Bros., deals, etc., Lyster.

Wm. Simpson, birch, sundry coves.

John McRae, elm, oak, hickory, Hadlow cove.

Allen & Panet, birch, St. Raymond.

Wm. Simpson, birch, sundry coves.

Robt. Dollar, waney white pine, sundry coves.

Fairville & Co., pine and spruce deals, Pierreville Mills.

Strickland, white pine, &c., Dobell's cove.

Dunn & Co., black walnut logs, Hadlow cove.

H. McLean & Co., white pine, etc., Cape Rouge.

D. D. Calvin & Co., oak and pine, sundry coves.

A. Baptist and others, deals, &c., Three Rivers.

Flatt & Bradley, staves, Dobell's cove.

May 21.—P. H. Grandbois, spruce deals, St. Casimir.

Louis St. Laurent, ash, birch, and waney pine, sundry coves.

Wm. Simpson, Birch, sundry coves.

Flatt & Bradley, staves, Point-au-Pizeau.

E. L. Kelsey, " Dobell's (Sillery.)

May 22.—D. D. Calvin & Co., oak and pine, sundry coves.

A. Fraser, white and red pine, St. Lawrence Docks.

May 27.—Burton Bros., elm, oak, &c., Sillery cove.

J. T. Murphy, " Indian cove west.

E. L. Kelsey, staves, Dobell's (Sillery) cove.

R. H. Klock & Co., white pine, etc., New Liverpool.

May 29.—Zephirin Perrault, birch, Price Bros'. cove.

D. D. Calvin & Co., ash, sundry coves.

June 1.—James Walsh, birch, Indian Cove East.

June 2.—Flatt & Bradley, elm, Hadlow cove.

June 3.—R. R. Dobell & Co. (McKee Lot), birch, Hadlow cove.

JOSEPH DONALDSON, of Bad Axe, Mich., lost 70,000 feet of logs by forest fires.

### BENT SHAFTING.

Who is not bothered occasionally by shafts that are bent somewhat? Every miller, I suppose. A wooden shaft can be straightened by taking hard seasoned lumber and baking it in a stove or oven until it is baked as small as possible. Then it can be dovetailed into the shaft at the crookedest part. Straightening an iron shaft is a more delicate matter, but it can be done by fixing three or five points of stone or iron, so that fire will not affect them, and so that the upper surface will be in exact line. Then lay the shaft upon them and fix it firmly, so that the bend will be up. Build a fire along the shaft and heat it evenly the whole length, when a comparatively light pressure will bring it down until it touches the points previously leveled or fixed in line. Then allow it to cool, and it will be found to be straight. The shaft must not be heated so hot as to cast a scale. The following is another plan of doing the same thing: Support the shaft at the extremities, and when left free to adjust itself, the crooked or convex side will be down. Then fasten it securely at either end, so that it cannot move, and apply a lever directly under the bend. While forcing it up from below, pound from above with a heavy sledge, which will expand or lengthen the concave side, and gradually bring it straight. But, after straightening, the hammered part must not be turned off, as it would again resume its crooked shape.—*Ex.*

### BARB WIRE FENCES.

In the case of Hillyard *vs.* the Grand Trunk Railway Company, a Brockville jury awarded the plaintiff a verdict of $225 for the loss of a colt from the Maud S. stock, which died from injuries received on a barb wire fence erected by the railway along the highway. The mare was being taken to pasture, led by a halter, and the colt was frisking around its dam, when it ran into the fence, receiving several severe cuts, from which it subsequently died. Mr. Justice O'Connor, in his charge to the jury at Brockville, seemed to lean to the view that a railway is bound by statute to fence its track from the highway, so as to protect the public and the property of the public from injury, and having so expressed himself he left it for the jury to say whether a barb wire fence was such a one as would satisfy the statute, and if not whether the colt was sufficiently under control, and then did it die from the injures received. The jury gave a verdict in the plaintiff's favor. Yesterday Mr. W. Nesbitt moved before the Q. B. Div isonal Court to set aside the verdict, and enter a verdict for Defendant on the ground that the statue only requires a railway to erect such a fence as will keep cattle off the track, and that a barbed wire fence is a legal fence, unless it is proved to be a nuisance. In support of the motion also, it was contended that the colt was not properly in charge, and that in any event it did not die from its injuries. Messrs, M. E. O'Brien, of Prescott, and G. H, Watson supported the verdict. The argument was very interesting, council for plaintiff comparing a barb wire fence to a miniature array of small daggers, while for the plaintiff it was described as an invention to prick the animal slightly, and prove more effective for the purpose of keeping the track clear. The court was free in remarking upon both sides of the case, the Chief Justice comparing the fence to the Scotch thistle with the motto attached to it, *Nemo me empune lacessit*, while on the orher hand one of the Justices favoured the fence, and said it was objected to only because it was new, referring in illustration to the language of the Duke of Wellington, to she effect that it percusion caps were introduced into his army, men would shoot each other, and the consequence would be calamitous. Judgment was reserved.—*Toronto Mail.*

### THE MYSTERY OF NIAGARA.

The mysterious and awful depths of Niagara's canon are fruitful subjects of comment. Some portions of it are reasonably supposed to be bottomless. When the first railway bridge was constructed here some ambitious persons attempted to sound the canon directly beneath it. They filled a large tin pail with stones and lowered it. The currents merely played with it. Then they took a stronger cord, attached a bar of railway iron to it, which actually floated, owing to the fierce counter currents.

A few years ago the United States lake survey came here, and, as a recorder of the survey, I know of the remarkable data obtained. We saw at once that the current would buoy up a large sinker, and proposed to test the smallest possible weight. We took a lead weight in the form of a plum bob, weighing thirteen pounds, and attached it to a small but strong cord. Then we secured the services of one of the ferry boatmen and started out into the stream. The boatman was ordered to row as nearly under the falls as possible, and the result will never be forgotten by a member of the party in that staff.

As we approached the falls the roar became more and more terrible, until we were not only unable to hear, but the lips positively refused to open and utter a sound. For several days afterwards some of the party were so deaf as to be unable to distinguish one word from another. The lead was cast first near the American falls, where bottom was found at eighty three feet. Near the main falls we found one hundred feet of water. Here the oarsman's sarength failed, and the little craft began to dart down stream.

At every cast of the lead the water grew deeper, until in front of the inclined railway the old guide and most of the party became horror-stricken and refused to go further down stream. Here the water told off 193 feet. We were then able to compute the depths lower down by simply ascertaining the width of the stream. Directly under the lower bridge the water narrows considerably and deepens to 210 feet. Lower down, at the Whirlpool rapids, the gorge gets very narrow and the current terribly fierce. Here the computed depth was 350 feet. One place in the gorge is still narrower, and would exceed a depth of 400 feet.

When the depth of the water is taken into consideration the height of the canon walls above the surface must not be forgotten. These walls range from 270 to 350 feet in height, often perpendicular, so that the total depth of the canon ranges from 250 to 700 feet. This great depth of the gorge leads directly in imagination to the canon's wear.—*New York Times.*

### LIST OF PATENTS.

The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, June 2, 1885, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 925 F. St., N. W., Washington, D. C. :—

319,373.—Cant hook—J. Winebrenner, Hecla, Ind.

319,071.—Lathe tool holder—C. W. Colesworthy, Boston, Mass.

318,938.—Saw, circular—E. Allen, Norwich, Conn.

319,181.—Saw mill carriages, etc.—E. M. Birdsall and G. Stringer, Ark.

319,019.—Saw set—A. F. Peelman, Kensington, Ill.

318,076.—Saw setting device—T. Gibbons, St. Louis, Mo.

319,425.—Saw tooth swage—J. M. Ryan, Vicksburg, Mass.

319,262.—Saw swage—A. Jacobs, Cheboygan, Mich.

319,395.—Sawing machine circular—W. H. Doane, Cincinnati, Ohio.

### High-Priced Art.

"My, but those art works do run into money,' remarked a passenger whose breath smelled like the south side of the Ohio river. "It beats all what fools some folks make over pictures. When I was in Chicago I saw a little painting about a foot square that was held at $500. Spect some simpleton will come along and buy it. If I had a million of money you'd never catch me paying $500 for a little painting like that.

"That's the way you talk," spoke up a bashful drummer, "but I'll bet you paid four times as much money for a painting not a tenth part as big."

"What, me?"

"Yes, you."

"What kind of a painting?"

"The one on the end of your nose."—*Chicago Herald.*


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☞PLEASE MENTION THIS PAPER. 12tl

### A Steamer Burned.

The steamer Peerless, of the Ottawa Navigation Company's line, took from Montreal to Montebello a large excursien on Wednesday. She had taken on the most of the party for the return trip when the fire broke out. The steamer had to be taken out and settled to save the hull and machinery. The steamer was valued at $90,000, and was insured, but was not entirely destroyed.

Don't disgust everybody by hawking, blowing and spitting, but use Dr. Sage's Catarrh Remedy and be cured.

### A Disastrous Fire.

The town of St. Cesaire, Que., suffered severely from a fire on Tuesday night. The residence of the Hon. Senator Chaffer was burned, together with seventeen other houses. The burned out residents were nearly all well to do people. The damage is estimated at $150,000, but the loss, in most cases, is partially covered by insurance.

* * * * Organic weakness or loss of power in either sex, however induced, speedily and permanently cured. Enclose three letter stamps for book of particulars. World's Dispensary Medical Association, Buffalo, N.Y.

## SETTING MACHINES.

Setting machines belong to the same class of work as erecting shafting, and is much the same thing—a matter of judgment rather than of acquired skill.

The only general rule that can be given is to set them level, with their shafts and spindles parallel to the line shaft. There are, however, many plans of doing this, and a word on the subject will not be amiss.

When a new shop is built, and the line shaft erected, or when its position is determined, and before it is erected, each floor of building should be scribed with what we should term a machine line—that is, a base from which the engine, the line shaft, countershaft, and machines may be set, independent of each other and yet with accuracy.

To do this, take the centre line through the building both ways, and scribe it on the floors not with a scribe awl alone, but with a wagon maker's scribing hook, that will cut a deep groove. After striking with a chalk line, tack down a straight edge, and score the lines with the scribing hook, so that they will remain as long as the floor lasts, or at least as long as machines are to be added. Plum up or down, as the case may be, and scribe each floor in this way; whether machines are to be set on floors or not, there are sure to be some use for these base lines. If there are good floors, scribe the lines on the walls, drive stakes, or put them on the ceiling; have them somewhere, in each story, and in each room. When these lines are once made, the setting of machines becomes a simple matter, for lines parallel to, or at right angles to, them are easy to lay out; and shafts or spindles can be set true by measurement if they are first levelled.

The common practice when a shaft or machine is to be erected is to square it from something which has previously been set by something else, on the principal of measuring by succession, a practice no mechanic would think of in other cases. If machines have iron frames and stand on masonry, they can be fixed by running melted lead or brimstone under the feet after setting and bevelling them. On earth floors, however, it is not necessary to build masonry for any except reciprocating machines. Stakes of locust cedar, or mulberry wood, set in the earth from three to four feet deep, and then sawn off level on top, make almost as good a foundation for any machine as masonry. It is, however, exceptional to find machines set on the ground, a plan that has nothing to recommend it, for when attempted there has to be a floor over a great part of the room, that usually costs as much as a complete floor would, if it had been laid down at the beginning.—*American Wood-Worker.*

## THE BAND SAW.

A writer in the *Northwestern Lumberman*, who claims 15 years' practical experience in using band mills, says:—

We have been using the band saw mills for sawing logs for the last fifteen years with unvarying success, and at no time have we used a band mill, and we have used nine or ten of them that had not a sawing capacity of 20,000 feet of 1 inch boards per day of ten hours, and at times we have sawed 30,000 feet of softwood in ten hours. As to its average capacity, we sawed 6,000,000 feet in one year, with one machine running part of the time day and night. It has been a great wonder to me that the live, shrewd northwestern lumbermen have gone on from year to year, for at least the last ten years, without seeing and testing the advantages of the band saw in the manufacture of lumber economically, as regards both the lumber saved and the power required to manufacture a given quantity of boards for a given quantity of logs (scale measure) in a given length of time. A 60 horse power engine will run three band saw mills with a capacity of 20,000 or 25,000 feet each per day with a surplus of power to run the necessary edgers and cut-offs to trim the lumber. Take this as a starting point, then say the mills average 20,000 feet each and you have 60,000 feet per day of ten hours. On this amount you save in saw kirf (the band saw taking only one twelfth of an inch) over the ordinary circular saw in use at least 2,000 feet, or one-fifth more lumber from what goes into sawdust, for which in some cases furnaces are erected to burn the "hills" costing more than one band saw mill. This 12,000 feet destroyed would at least be worth $10 per thousand or $120 which is lost per day, or $24,000 in season's sawing of 200 days. This $10 per thousand is a low estimate for first class pine lumber, as a considerable proportion would be uppers, worth 50 per cent. more, which would make at least $30,000, lost or saved, in 200 days' sawing. For instance, say three mill cost $6,500 put up and started exclusive of power, you would still have a nice little margin of $23,000 on 200 days' sawing, and also have your mills. To the mill men who value the lives of their men (and we know both the humane and thrifty do), we say we know of fifty band saws in use that have never for the last ten years fatally injured a man. Another advantage in the use of band saw mills in pine or other kinds of lumber: You can saw a taper log or a partly rotten log, and get all the good lumber out of it there is in it, which you cannot do with a gang-saw.

## LOGGERS AT MEAL-TIME.

They literally chuck their food; and it would be more correct to say of them at the table, using their own unique term, that they are "chucking" than that they are "eating." When a meal is ready the cook opens the door and calls and the men rush in with a silent, grim, determined energy, that is suggestive of a gathering of old soldiers in the banquet rooms of Walhalla. The secret of this is that the men all wear rubbers or packs, and so move on the floor without noise; and the eagerness with which they crowd forward, bareheaded, with swinging arms and leg striding far, and all without a sound, almost makes the beholder wonder if he has not by some mistake got down into the wrong place. Hungry men are reticent. The sensation of hunger overpowers all sense and reverts civilization for the time to savagery. These men march in and seat themselves at the tables without a word. If there were only one table and food enough for a dozen of them, they would, it is easy to see, scramble and fight for it like savages, and the strongest one among them, that is, the greatest bully and glutton, would be elected chief. But there is plenty, as they known, and so each goes to his place, loads his plate and begins chucking without ceremony.

For five minutes you hear nothing but the incessant clashing and clattering of knives and forks against tin plates, and see nothing but the upward jerk of a hundred hands and the downward bob of fifty heads as, midway, the well trained jaws, agape, are catching the chuck on the fly! By that time the stomach has got fairly to work, the sensation of hunger is relaxing its grip, the social instincts begin to exert themselves again, the savages are once more becoming civilized. Here and there you hear them talking. Quip and quirk are on the wing, contentment is in the air. In five minutes more the place has become jovial and the more skillful chuckers are leaving the room with pipe and tobacco in hand, to finish the meal with the inevitable smoke. Then off to work, and a repetition of the same scene at the next meal.

Salt meat, often half-boiled, potatoes ditto, fried pork stuck fast in half cold pork grease; good fresh beef rained forever here and hereafter by being fried while swimming in pork fat; fresh beef boiled and served without seasoning of any kind; beans that sometimes are scooped from barrel to boiler and so "baked" without change of water or vessel—a deed against which every Boston stomach must rise in protest—bean soup served with the beans so hard that they will break between your teeth, and the water as clear as when the work began, but with its transparency a trifle obscured by bits of broken cracker that seem to float and sail around their iron-bound coast; hot sado biscuit, a spoonful of flour to a quart of soda, it seemed to me, very short with oceans of lard; mince pies of hashed beef and pork, salt and fresh dried apples, with molasses to suit, and raisins thrown in to support the crust that is made of chilled pork fat sprinkled with flour; tea that is boiled down, filled up and boiled again, and kept boiling from meal to meal, dished out from the boiler grounds and all, into measures that are half filled with cold or luke warm water, and drank from tin cups whose inner surfaces are coated with the brown and dirty looking sediment of the over boiled tea, without sugar or milk—all this sort of thing the boys endure day to day with an amiability that would make new England dyspeptics miserable with envy.

But it must not be understood that camp cooks are without skill. They are often good cooks. Most of them can make excellent yeast bread, which is, after all, the staff of life. But there is so much work to be done, and only the one man, with one, or at most two, chore hands to assist him, that much of it must be hurried over and slighted. From four in the morning until eight or later at night the cook must be on duty the season through. "Mike," our French cook, is as good as they average. He is active and industrous, and will cut more meat, in his way, dish up more potatoes, hash, fried pork, stewed steak, soda biscuit, baked beans, etc., in five minutes than any other man I ever saw at work, and they way he will place and arrange dishes on a table is luminous with dexterity.—*Charles Ellis in the Current.*

## CORKS.

Few persons have any conception of the mportant part which the cork plays in the commercial world.

Cork-tree forests abound in countries bordering on the Mediterranean, though the finest quality is found in the Spanish peninsula. There the cork-tree is cultivated especially for its bark, the gathering of which is an industry in which the whole communities are engaged. The bark is composed of two concentric layers. The interior is a fibrous tissue, called the mother or tannin, while the exterior is a spongy, elastic substance, the corkwood of commerce. The cork harvest occurs in summer, when the tree is in full sap. Circular cuts are made in the bark with a hatchet, while a vertical one is also made. The two edges are then raised and the handle of the hatchet used to strip them downward. A tree is not unbarked until it is 20 or 30 years old.

Corkwood, in its crude or uncut state, varies in value, according to its purity. This difference in price accompanies it through the various stages of manufacture, and classifies it for its multiform uses.

Machine-cut cork are of different grades, variety and prices, and are devoted to all sorts of purposes. The finer quality are used for mineral waters, and other carbonated beverages, which are dependent upon the retention of the carbonic acid gas. The finest cork, that which is almost free from the black and crumbling streaks found to a greater or less extent in all corkwood—is hand cut by experienced workmen, armed with razor-edged knives of peculiar shape. These are principally used in the bottling of champagnes or other fermented wines, and command a high price.

Manufacturers of champagne, in addition to the labels which the place upon each bottle, have adopted a system of branding the corks with the makers' names. Of late there has sprung up a new industry, the buying of old corks which bare the brands of celebrated makers, and for which high prices are in most instances paid. The object in the purchase of these corks is manifold. While a great portion of them are bought by the original owners of the corks as a matter of protection or for other purposes, the majority find their way into the hands of manufacturers of inferior goods.

In order to push their respective wines, the agents of the foreign houses have resorted to the device of buying back their corks. This serves as an incentive to dealers and to waiters to force upon customers brands of champagne on which they can make the greatest perquisites. With this object in view other agents are employed, whose duty it is to visit all the leading hotels, restaurants and wine rooms in the country, and offer the waiters or attendants employed therein sums ranging from five cents to a dollar or more for every cork bearing their brand that is returned to them. With such an inducement it is not surprising that waiters will extol the wares of the highest bidder.—*Bottlers' Gazette.*

## PRACTICAL SCIENCE.

The contractors for the Suakim and Berber railroad have decided to adopt electric lighting in order to encounter satisfactorily the obstacles as to climate, etc., of which so much has been said. By this means they intend to construct the road during night time, when the temperature will be such as Europeans can withstand with tolerable ease, while during the heat of the day they can take their rest. To carry out this arrangement a firm of Leeds, England, have already supplied two complete installations for the electric lighting.

The engine boiler and dynamo for each set, as well as the support for the lamps when not in use, are all neatly fixed on a specially designed light railway truck. When in use the lamps will be hung from iron tripods 32 feet in height, and placed at intervals of 30 yards along the line of the proposed railway. The tripods are made of light iron tubing jointed at the top and made telescopic in the middle, so that they can be folded together, removed and united whenever required with the least possible trouble. The insulated cable to convey the electric current to the lamps is coiled on reels, two being supplied with each intallation. On these reels the cable can be run off or wound up, as required. The lamps, which are of 2,000 candle power each, can also be moved forward, one at a time, from one end to the other as the work of construction proceeds, a simple switch arrangement being provided for the cutting off of the current from any particular lamp without interference with any of the others. The dynamo machines are of the Brush type and are driven by Parsons' patent high-speed engines. The boilers are of the locomotive type and are supplied by means of a feed pump with water from a tank fixed under the dynamo machine, which latter, by this means, is also kept cool during work. The carbons of the lamps are arranged to burn for a period of 16 hours.—*Iron Age.*

## THE WALNUT.

A writer in *The Garden* (London) wonders why this tree is comparatively but little planted, a singular fact when the beauty and value of its wood are taken into account. For gunstock and much of our fine sorts of furniture, walnut timber is valuable. Walnut trees, moreover, are free growing on almost all kinds of soil, and the crops of nuts which they produce would pay at least the rent of the land on which they grow, while freeholds might be purchased with trees of fourscore years of age. Walnuts in a landscape, also, are trees of mark, their magnificent heads of fine foliage in parks or paddocks rendering them especially adapted for such situations. They associate well with oak, beech, elm, sweet and horse chestnut, as well as with various other trees, and they do not rob the land more than their companions do. Their smooth, glossy leaves are washed clean by every shower, and the foliage is not so thick as to throw the rain of the grass or to keep air currents from circulating freely among the branches. There are, therefore, no trees either in park or pasture under which herbage grows better than it does under walnnts. Besides, walnuts come into leaf late, make their growth quickly, and loose their foliage nearly all at once after the first autumn frost. Thus a chance is given to take the leaves out out of the way, so as not to injure the grass, while the shining dark young wood, with the grayish mature limbs, are left full in view. As to any tree that will grow more quickly into a size to be useful, I do not know where to look for it. I have seen old walnut trees that measured from 60 feet to 90 feet high; diameter of branches from 60 feet to 96 feet; and of bole or trunk from 3 feet to 5 feet diameter; and no doubt large trees are elsewhere to be found.

## Fire in a Colliery.

LONDON, June 3.—A fire broke out in the Phila Colliery, near Durham, to-day. Three hundred miners are in the pit. All attempts to subdue the flames or render the miners assistance have failed. Great excitement exists, and is feared the majority will perish.

Later despatches say that all but 22 miners have been rescued. Those missing are supposed to have been killed. The fire was caused by an explosion of fire damp.

# Chips.

FOREST fires lately prevailed at Woodstock, Big Indian, Mount Pleasant, and other points in the Catskill mountains, N. Y.

THE Rainy Lake Lumber Company, at Rat Portage, Algoma, Ont., has its new machinery in shape, plenty of logs, and will make a large cut this season.

THE new town that is growing up about the plant of the Harman Lumber Company, on the Sturgeon, above Escanaba, Mich., has been named Forest City.

THE Lake Michigan & Lake Superior Transportation Company has contracted to carry 3,000,000 feet of lumber from Ashland, Wis., to Chicago, this summer.

A NEW YORK state paper says that lumbermen on the north branch of the Saranac river, that state, are hiring men to protect their timber tracts from forest fires.

A LOG 24 feet long, hauled at Blackman Brothers' camp, at Pillchuck, Snohomish county, W. T., measured six feet eight inches in diameter at the small end. The stump was eight feet across the top.

FIRES in the woods of Sugar valley, and in the White Deer mountain region, Pa , had, on May 23rd, swept over 25 square miles of territory, destroying timber, ties and fence rails to an estimated value of 1,000,000.

THE forest fires about Newberry, on the Detroit, Mackinac & Marquette railroad, upper peninsula, Mich., were on fire, May 21st, Dollarville was reported destroyed, and eight houses in the vicinity of Newberry.

ON May 24th forest fires were reported to the north and west of East Tawas, Mich. Fires south of the Detroit, Bay City and Alpen railroad were destroying a large amount of pine, and burning everything on the ground, including down timber and logs on the skids.

REPORTS from various parts of the eastern townships, Quebec, indicate that the recent rains have been a great boon to lumbermen, who would not otherwise have been able to float their logs to the mills this season in consequence of the hot weather in the early spring.

WHITE & FRIANT, of Grand Rapids, Mich., own a fine tract of cork pine 10 miles east of Calkaska, Mich., and have been negotiating with parties there for a mill site. The matter has awakened much interest at Kalkaska, and the citizens offer the firm 40 acres of land if they will erect a mill on it.

THE total number of boiler explosions in the United States in 1884 was 152, by which 254 people were killed and 261 others injured. This number falls slightly below the preceding year. Fifty-six of the explosions were of saw mill boilers. The percentage of 1884 was 37 per cen. of all the explosions, instead of over forty per cent. the year before.

WORK on the Chignecto Marine railway to connect the Bay of Fundy to a point on the Straits of Northumberland, has been begun. This road is to be on the same plan as that of Ead's ship railway across the isthmus, and will obviate necessity of circumnavigating Nova Scotia in passing from the coast of New Brunswick into the ocean eastward. It will be 25 miles long, and will cost $5,000,000.

MOUNTAIN fires had burned for a week previous to May 22nd, north of Stroudsburg, Monroe county, Pa., and the vicinity of Buskill. Great damage was reported to the lumber interests and to the farmers. A forest fire was also raging between Bangor and Pen Argyl. The fires on the Blue mountains, in the vicinity of Danielsville, Northampton county, which were partly subdued two weeks before by a rain storm, broke out afresh and were spreading rapidly, causing apprehension that a great deal of valuable timber would be destroyed.

### A TERRIBLE STORM.

CHICAGO, ILL., June 2.—A heavy storm of thunder and lightning, wind and rain struck the city this afternoon, lasting nearly an hour. Numerous buildings in the outskirts were struck and several demolished. John Montague, a watchman for the McCormick reaper works, standing near a fire alarm box, received a shock, from the effects of which he died. A number of other persons were injured. Lightning struck the brick wall of the new baseball grounds, ten feet high, demolishing three hundred feet and badly shattering the rest. At Lake a man standing near the chimney had his skull fractured and a child was badly bruised in a shanty which a bolt struck and nearly annhilated. To-night the lightning is blinding, and rain falls in torrents. Apprehension is felt for the safety of vessels on the lake.

June 3, 1 a.m.—Within the last hour and a half four more persons have been killed outright by lightning.

### Snapping and Bubbling in Bnilers.

In cases of externally fired boilers, there is noticeable a snapping and bubbling sound at the bottom after pulling down the fires with a strong draught on, prior to blowing down. This is due to the "mud" (organic and inorganic substances) which has settled during the night, while the boiler was losing heat on the lower side, the water becoming comparatively quiet on the inside. The steam bubbles are made at the bottom, underneath the mass of mud, and, when sufficiently buoyant, come in contact with the colder water above and are condensed, forming a snapping noise in collapsing. The important fact involved is that this never occurs in a clean boiler with comparatively pure water. —*Manufacturers' Gazette.*

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.


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# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

JUNE 9.—Retail men report trade satisfactory as regards the quantity going out, but owing to excessive competition only a small margin of profit. Many young men having no experience of the lumber business, having been a few months in a lumberman's office, perhaps, and some not having gained even that much knowledge gained by contact with a lumberman, go into selling on commission or otherwise, and prices get cut so low that a living profit is not left for the men of mature experience having to bear the expenses connected with a yard. There is more buildings in course of erection at the present time than at any previous time in my recollection, and yet the individual benefit to lumbermen is not felt by reason of the large number engaged in the business.

Short bill stuff on the opening of the spring sold in many cases for $11.50 per M on car here and will not bring more than $11.00 now, and a corresponding drop at the yards, so that 16 feet and under may now be quoted at $13.00 from yard. There is no scarcity of any kind of lumber, except it may be said that dry 1½ cut up and better is hard to obtain except in small quantities.

There is but little going over the docks for the sufficient reason that there is but little fit to ship, last season's stock being nearly exhausted. A number of vessels have left here for other ports light, not being able to obtain cargoes.

During the last week considerable lumber has arrived here from Ottawa by the G. T. R., on a 9 cent. rate, making the car of 24,000 pounds $21.60, only the same figure as from Gravenhurst, as between the C. P. R. and G. T. R. scrimmage the lumbermen are likely to derive some benefit—so mote it be. The latter have been under bonds long enough and anything that will help them from the former will not be amiss. If we could only have competition between the N. & N. W., or at least some other road constructed that would come into competition with that road, lumbermen would be well pleased, as between high rates of freight, excess loading and damage for detention of cars, the lumbermen have no very smooth travelling. The present cutting in rates between the C.P.R. and G. T. R. will, however, be some slight compensation.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| Sound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

## MONTREAL.

*From Our Own Correspondent.*

JUNE 9.—As was expected there has been a considerable extension in the output of lumber during the past two weeks, but now there has been rather a falling off and business has become decidedly dull, especially for the building trade, but shipping shows a good deal of activity and a considerable number of rafts have been passing down to Quebec. Stocks are ample for all requirements, and prices remain steady as last quoted, viz., ex yard :—

| | |
|---|---|
| Pine, 1st quality, ₩ M | $35 00@40 00 |
| P ne, 2nd " ₩ M | 22 00@24 00 |
| Pine, shipping culls, ₩ M | 14 00@16 00 |
| Pine, 4th quality deals, ₩ M | 10 00@12 00 |
| Pine, mill culls, ₩ M | 7 00@ 9 00 |
| Spruce, ₩ M | 10 00@13 00 |
| Hemlock, ₩ M | 9 00@10 00 |
| Ash, run of log culls out, ₩ M | 20 00@25 00 |
| Bass, " ₩ M | 12 00@18 00 |
| Oak, ₩ M | 40 00@50 00 |
| Walnut ₩ M | 60 00 100 00 |
| Cherry, ₩ M | 60 00@80 00 |
| Butternut, ₩ M | 25 00@35 00 |
| Birch, ₩ M | 20 00@25 00 |
| Hard Maple, ₩ M | 25 00@35 00 |
| Lath, ₩ M | 1 50@ 0 00 |
| Shingles, 1st, ₩ M | 3 00@ 0 00 |
| Shingles, 2nd, ₩ M | 2 50@ 0 00 |

### SHIPPING.

There has been a good deal of activity shown in the trade for the past fortnight. A good demand exists for freight room at steady rates although vessels are plentiful. There, however, have been no vessels loaded as yet for South America. Since our last the following clearances have been made at the Custom House : Per SS Carmona, for London, 24,861 pcs. deals : per SS Sarnia, for Liverpool, 25,520 pcs. deals ; per SS Bristol, for Bristol, 13,795 pcs. deals ; per SS Ocean King, for London, 5,600 pcs. boards and 232 pcs. deals ; per Lake Huron, for Liverpool, 3,795 pcs. deals and 4,890 pcs. boards ; per SS Coreau, for London, 916 pcs. deals ; per SS Oxenholine, for Liverpool, 19,879 pcs. deals, 1,330 keel ends and 4,825 pcs. boards ; per SS Siberian, for Glasgow, 9,854 pcs. deals ; per SS Escalona, for London, 5,280 deals ; per SS Lake Superior, for Liverpool, 3,821 pcs. deals ; per SS Scotland, for London, 21,898 pcs. deals and 1,695 pcs. Walnut ; per SS Toronto for Liverpool, 16,129 pcs. deals ; per SS Avalara, for London, 14,510 pcs. deals ; per SS Somerset, for Bristol, 2,706 pcs. deals ; per SS Norwegian, for Glasgow, 61,572 pcs. deals ; per SS Lake Champlain, for Liverpool, 1,353 pcs. deals and 2,510 pcs. lumber ; per SS Suffolk, for London, 37,425 pcs. deals, 9,200 pcs. boards and 1,152 ends ; per SS Erl King, for London, 2,760 pcs. deals ; per SS Cynthia, for Glasgow, 8,870 pcs. boards and 5,587 pcs. deals ; per SS Lauderdale, for Barrow, 32,886 white pine deals, 952 ends and 9,436 pine boards ; per SS Hanoverian, for Liverpool, 2,939 pcs. boards and 7,481 pine deals ; per SS Montreal, for Liverpool, 12,637 pcs. boards and 6,393 deals ; per SS Glenmarvon, for London, 66,192 pcs. deals, 7,232 pcs. boards and 2,716 ends.

### CORDWOOD.

There is a very slow demand existing at present for firewood. Prices are steady and are considered fair if there was only a demand. Stocks are getting heavy and a good deal of inferior quality is still coming in by the boats. Dealers are not sanguine of doing much this summer as coal is likely to be reasonable. We still quote wharf prices ex cartage as under :

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## CHICAGO.

### THE CARGO MARKET.

The *Northwestern Lumberman* of June 6th says :—The number of cargoes arrived in port during the week was 185, as compared with 184 last week, and about 200 for the corresponding week last year. The over Sunday fleet numbered 54 vessels, about 30 of which were found in the market basin Monday morning. Since then the daily arrivals have numbered from 15 to 25, and the market has not been overcrowded with offerings. On Thursday, when this report was closed, the wind was in the west, blowing a stiff gale, so that the prospect for another fleet right away was not bright, while there was nothing but a cargo of shingles on the market.

The commission men had a small tussle with the Monday fleet. A large majority of the offerings were dry No. 2 inch, and the yard dealers elevated their noses at it, and talked low prices or nothing. But the commission men spread their legs apart and braced themselves against the bearish influence. The yard merchants clamored for piece stuff, and the little they got was to all intents piece stuff, when it had been meagerly pieced out among the hundred yards—there was just about enough to give each one a piece to carry off on the shoulder. Of course when a man goes down to the market to buy dimension, and finds only coarse inch lumber, of which he already has enough, he does not bite eagerly at the bait that is offered him. But the Monday fleet was disposed of without a very long delay. The No. 2 stock dragged a little at weak prices, but the few cargoes of pine stuff went off without much trouble.

While it cannot be said that a lower price for No. 2 stock has been established, it is true that lumber sold on Monday and Tuesday at a range of 25 to 50 cents a thousand lower than previous prices. This was effected on account of the pressure of the large fleet. But after a clearance of the market of its load, it is doubtful if fair to good No. 2 stock could have been bought any cheaper than it was the week before. The bottom of the range is still at $9.50, but more has sold as low as that during the week than previously. A desirable cargo of No. 2 stock will bring $10 a thousand, and very good, more. Our highest figures on No.2 stock—namely, $11, is intended to include all that can be classed as No. 2, which embraces very good common lumber. But it must not be inferred that much that is sold on the market here is of that grade that sells above $10 a thousand.

There is very little medium, and next to no No. 1 stock being offered at the market docks. It has been either bought at the mills, or is being held for future sale. One man at Muskegon holds a quantity of strips running a large per cent. to C and better, at $15.50 a thousand there. Buyers on this side think such a price too high.

The reason why no more dimension is coming to market is simple, and easily understood. The dry stock over the lake, in pile when spring opened, was mostly bought by yard men who had it shipped directly to their docks. They were able to get it at about 50 cents a thousand better than they would have had to pay on the market here ; besides they could not have bought it here when they wanted it, or in such quantity or quality as would make it advantageous. It is claimed that green piece stuff that has been sold here at $8.50 has been bought to arrive at $8, and that millions of feet have been thus contracted for. This a sufficient reason why there is a meager market supply of piece stuff, and why it is eagerly wanted by those who depend on the market for their purchases.

Short dimension green has sold this week at $8.50, when the cargo was good. Scalaway stuff has to go as low as $8.25. Dry lumber is 50 to 75 cents higher, the difference between dry and green narrowing down as the season advances. Long dimension brings 50 cents a thousand more than short.

Standard shingles are coming moderately, and sell at a range of $1.95 to $2.05 for brands that anybody wants. Very few shingles of any class but standards are arriving.

Lake freights are flat. Lumber is now being brought from Muskegon for $1 a thousand, in many instances.

Quotations of cargo prices are as follows, so far as the market has developed them :—

| | |
|---|---|
| Dimension, short, green | $ 8 25@ 8 50 |
| Dimension, short, dry | 9 50 |
| No. 2 boards and strips | 9 50@11 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@18 00 |
| Shingles, standard | 1 95@ 2 05 |
| Shingles, extra | 2 10@ 2 20 |
| Cedar | 1 60@ 1 75 |

Lake freight rates are quotable as follows :

| | |
|---|---|
| From Grand Haven, dry | $ 1 12½ |
| From Muskegon, by steam | 1 00 @1 12½ |
| White Lake, dry | 1 25 @1 37½ |
| Ludington | 1 37½ |
| Manistee | 1 37½@1 50 |
| Frankfort | 1 50 |
| Menominee | 1 50 |
| Cheboygan, Duncan City, St. Ignace | 1 50 @1 62½ |
| Alpena | 1 62½ |
| Manistique | 1 62½ |

### AT THE YARDS.

There is no marked change in regard to prices. Sales are being made independently of the printed list, though the range from it is not great on all the more saleable kinds of lumber. In the present jog-trot state of business there is no motive to slash prices, neither is there much regasd paid to an arbitary list. Each house, while wishing to sell for all the lumber will bring, does not stick for the last dollar on a thousand when such a course woud hinder a sale. It is likely that for some time to come, probably all summer, there will be no variation from the present manner of doing business. Assortments of stock that are now broken will be gradually filled by constant receipts, and the weather will carry on the process by converting green lumber into dry. So it will be seen that during the summer months, there will be no reason why there should be a scarcity or an advance in prices of a marked charater.

Receipts of lumber, shingles, etc., from Jan. 1st to June 4th as reported from the Lumberman's Exchange :—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 55,922,000 | 28,090,000 |
| 1884 | 58,376,000 | 39,877,000 |

FROM JANUARY JAN. 1, 1885, TO JUNE 4, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 302,260,000 | 97,553,000 |
| 1884 | 543,340,000 | 220,571,000 |
| Decrease | 241,080,000 | 123,018,000 |

STOCK ON HAND MAY. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 334,729,669 | 289,216,785 |
| Shingles | 164,710,350 | 204,567,875 |
| Lath | 18,664,887 | 27,063,540 |
| Pickets | 1,779,573 | 1,003,416 |
| Cedar posts | 132,500 | 235,493 |

LAKE RECEIPTS FROM JAN. 1 TO JUNE 4.

| | |
|---|---|
| Lath | 8,271,000 |
| Wood, cords | 7,003 |
| Posts | 754,605 |
| Railroad ties | 378,474 |
| Slabs, cords | 4,802 |
| Bark, cords | 1,094 |
| Poles | 2,083 |
| Spiles | 200 |

## BOSTON.

The *Journal of Commerce* of June 6th says : There is a fair trade in supplying the demand for the many building operations in progress, but there is a very close competition for business, and prices in general rule very low. Spruce is in active demand and scarce and cargoes meet with a ready sale firm prices. Hemlock boards are also firm. Western pine is quiet and steady. Southern pine is quiet but rather firmer. Desirable walnut, cherry, and quartered oak are quite firm. Poplar is arriving freely, much of it being of poor quality.

### CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## ALBANY.

Quotations at the yards are as follows :—

| | |
|---|---|
| Pine, clear, ₩ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 13 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₩ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 16 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₩ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ₩ M | 40 00@43 00 |
| Ash, second quality, ₩ M | 25 00@30 00 |
| Cherry, good, ₩ M | 60 00@85 00 |
| Cherry, common, ₩ M | 25 00@30 00 |
| Oak, good, ₩ M | 40 00@43 00 |
| Oak, second quality, ₩ M | 20 00@25 00 |
| Basswood, ₩ M | 25 00@30 00 |
| Hickory, ₩ M | 40 00@40 00 |
| Maple, Canada, ₩ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₩ M | 38 00@40 00 |
| Shingles, shaved, pine, ₩ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 00@ 4 00 |
| " clear, " | 0 00@ 3 50 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ₩ M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 00 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

We change quotations on shingles and lath. Cheap railroad freights have enabled Michigan dealers to deliver shingles and lath in this vicinity at very low figures.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@15 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| Cedar | 2 75@ 3 20 |
| Lath, No 1 | 1 75@ 1 90 |
| No 2 | 1 00@ 1 25 |

### BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

### TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

### LONDON.

The *Timber Trades Journal* of May 30th says :—There was a somewhat small attendance at Wednesday's sale. There was the same noticeable absence of boys marking catalogues, and their places lent an air of thinness to the assemblage which was ideal more than real as far as results are concerned, and though, perhaps, the brokers would prefer to see the room full, it is to those who buy alone they have to look.

Another reason why the seats were not fully occupied was the holiday time, and Whitsun-week is not usually a very active one for business; merchants are rather inclined to take things easy a bit, and starting with a Monday bank holiday there is not much earnestness imparted into transactions of the remaining five days—four we might have said, for Saturday is, after all, only a business day in the centre of the city by courtesy.

The weather presented an agreeable contrast to the previous sale, and those who came to buy were free from those atmospheric disadvantages that appertained to the proceedings of Wednesday week. Bidding was pretty active for some goods, but others hung fire most lamentably. The yellow pine logs submitted fetched their price, but we observed no hardening tendency in the spruce logs offered, and though the limited stocks here coupled with the moderate stocks at the shipping places must ultimately lead to a rise, there is no evidence of it to be found in the present tone of the market, as represented by the public sales.

The pitch pine goods ex Caroline and Nymphen, though only representing deck and stowage goods, went, we consider, low, being freshly imported, and by no means second rate. There was a total absence of competition for this description of wood, the bidding be confined to a few of the principal dealers, and one of these latter took the bulk of the lots without having to bid twice.

We noticed a little lots of Canadian cedar in the sale, a wood that has not come on the market for a considerable time. It is a very durable wood, and we believe in Canada and the States they use it for sleepers, for which it is well fitted, but it is perfectly useless for pencil work. It has been tried for brush backs, but was not liked, though the color was good for fancy articles. The value put on it in the saleroom must, we suppose, be taken as a representative of what it is worth in the market, and that must be low indeed, as 8d. a foot was all that was bid for it, and being without reserve it had to go.

Spruce seemed to sell rather better than the day before, but still the price is not as good as the limited stocks would lead us to expect. Flooring went low, and it was only the chance of securing a bargain that keep buyers to the front.

The season is slipping along, already we are within four weeks of the longest day, and yet only a small portion of the opening shipments of the year are on their way. Things have been undoubtedly quiet, and trade will continue to be of the same unsatisfactory nature while competition is so much against home industry. The burden entailed on trade by the additional taxation could not have happened at a more unfavorable time. Incomes derived from shipping have already been diminished by the low freights, and the expense of working vessels at little or no profit, if not actual loss, is sufficient drain on capital without its being further reduced by the tax collector. The Whitsuntide holidays have, it is reported, been the quietest known for years, and it is very significant of the depressed condition of affairs that the railway earnings have been so low during Easter and Whitsun weeks.

The "old reliable"–Dr. Sage's Catarrh Remedy.

### LIVERPOOL.

The *Timber Trades Journal* of May 30th says :—For all the business done this week the market might as well have been entirely closed as during Whit-week the whole of the time is devoted to holiday making; in fact to such an extent is it carried out that, with the exception of Tuesday, which is the recognized Manchester market day, many markets are entirely closed until Wednesday, and others do little if any business during the week. Even large public companies suspend work every day at noon, and the doors are closed with amazing promptitude, so as to permit the employes to join in the numerous excursions got up for the schools and charitable institutions.

The imports continue light, so far as entire cargoes are concerned, but by the regular lines of trans-Atlantic steamers and sailing vessels we have had the customary quantities of oak railway waggon scantling, whitewood, staves, and other descriptions of timber from the United States. An exception must, however, be made in black walnut wood, which is scarce and advancing in price. Shippers of this wood have for some time past been getting unremunerative returns for their consignments, and as their home and continental markets afford them a more profitable business, the wood is going in these directions.

There is no change in the value of spruce deals, but as the import is confined to small quantities coming forward in vessels bringing birch and pine timber, the stocks are slowly getting worked down to moderate dimensions.

We notice two public sales announced for next week, when some of these goods will be offered "to arrive," and it is to be hoped that with the resumption of business more life may be infused into the trade, though few are found sanguine enough to expect it.

---

THE Rathbun Company, Deseronto, are shipping large quantities of building material to many points along the line of the Midland Railway.

---

THE Henderson Lumber Company, headquarters at Montreal, has been incorporated, with a capital stock of $100,000.

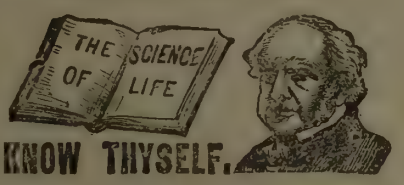
---

Above all other earthly ills,
I hate the big, old-fashioned pills;
By slow degrees they downward wend,
And often pause, or upward tend;
With such discomfort are they fraught,
Their good effects amount to naught.
Now, Dr. Pierce prepares a pill
That just exactly fills the bill—
A Pellet, rather, that is all—
A Pleasant Purgative, and *small*;
Just try them as you feel their need,
You'll find that I speak truth, indeed.

---


266th Edition. Price Only $1

BY MAIL POST-PAID.




KNOW THYSELF.

A Great Medical Work on Manhood,

Exhausted Vitality, Nervous and Physicial Debility, Premature Decline in Man, Errors of Youth, and the untold miseries resulting from indiscretion or excesses. A book for every man, young, middle-aged and old. It contains 125 perscriptions for all acute and chronic diseases, each one of which is invaluable. So found by the Author, whose experience for 23 years is such as Probably never before fell to the lot of any physician. 300 pages, bound in beautiful French muslin, embossed covers, full gilt, guaranteed to be a finer work in every sense—mechanical, literary and professional than any other work sold in this country for $2.50, or the money will be refunded in every instance. Price only $1.00 by mail, post-paid. Illustrative sample 6 cents. Send now. Gold medal awarded the author by the National Medical Association, to the officers of which he refers.

This book should be read by the young for instruction, and the afflicted for relief. It will benefit all. —*Lond·n Lancet.*

There is no member of society to whom this book will not be useful, whether youth, parent, guardian, instructor or clergyman.—*Argonaut.*

Address the Peabody Medical Institute, or Dr. W. H. Parker, No. 4 Bulfinch Street, Boston, Mass., who may be consulted on all diseases requiring skill and experience. Chronic and obstinate diseases that have baffled the skill of all other physicians a specialty. Such treated successfully without an instance of failure HEAL THYSELF



MONTREAL SAW WORKS

CHAS. M. WHITLAW, *Manager.*

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

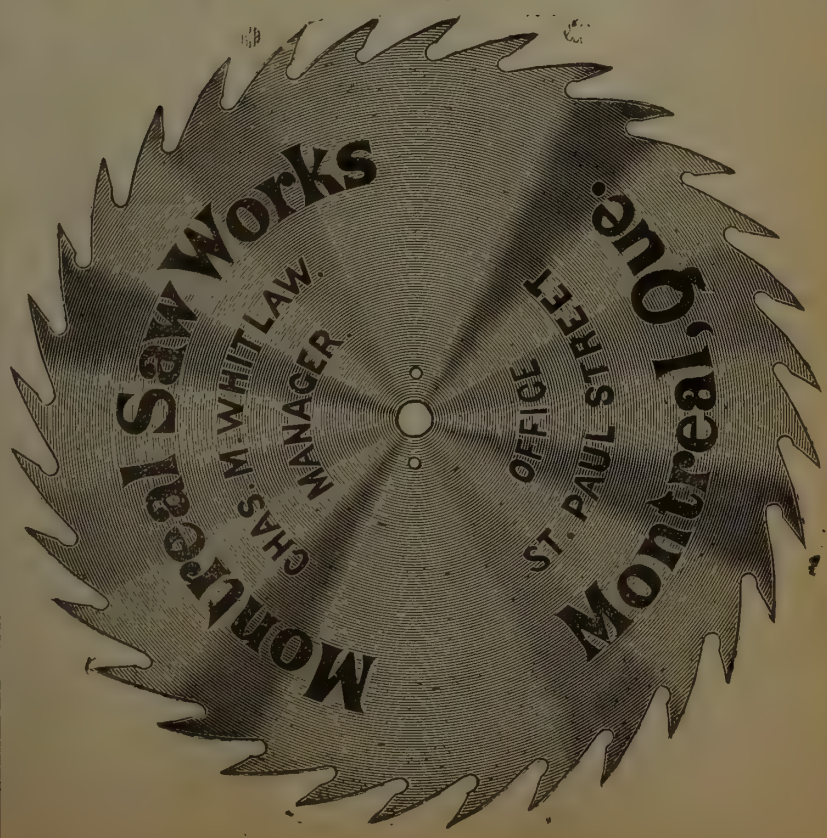
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

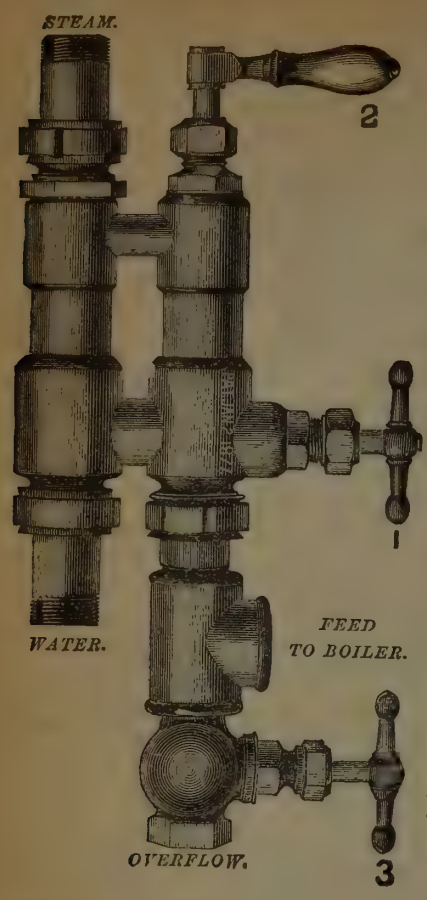
BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.




Catalogues and Price Lists furnished on application.




# The Hancock Inspirator

**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

## Over 70,000 Now in Use.

MANUFACTURED BY THE

## Hancock Inspirator Co'y

*5 Custom House Square,*
MONTREAL, P.Q. - - CANADA

**Manufacturers of Inspirators, Ejectors, and General Jet Apparatus.** 1y1

*Something New in Leather Belting*

**To Mill Owners, Lumbermen, Manufacturers**
*USE ONLY*

# Dixon's Patent Lap Joint Star Rivet Leather Belting

To be had only from
F. E. DIXON & Co., 70 King Street East, Toronto
**Send for Circulars and Price Lists.**

# PETER ROBERTSON

CHAUDIERE, - OTTAWA,

MANUFACTURER OF

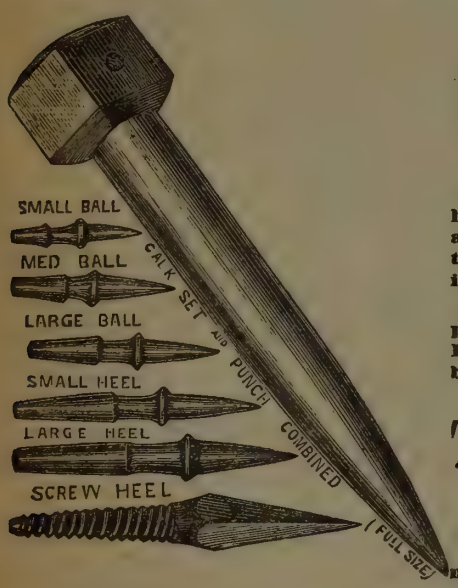
# LUMBERMANS' TOOLS!

**Which took every honor awarded at the Centennial Exhibition.**

*THE CELEBRATED*

## Lightning Cant Dog.

PETER ROBERTSON, Chaudiere, Ottawa.
20Lly




LUMBER DRIVERS'

# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

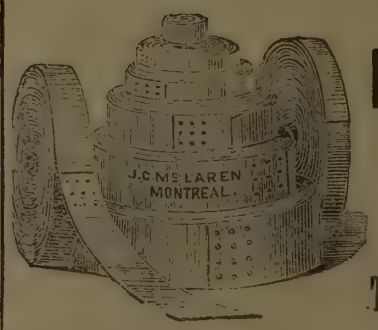
## T. McAVITY & SONS,

*ST. JOHN, N.B.*

**Samples and Price Lists sent by mail on application.** L2

ESTABLISHED 1856

# OAK TANNED BELTING




**Acknowledged by all to be the**

## Best Belt ever offered

*IN CANADA*

*EVERY BELT GUARANTEED*

**The Best Mills in the Country use it.**

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

For Discounts and Terms, Address

## JNO. C. McLAREN,

292 & 294 ST. JAMES STREET WEST, MONTREAL.

**Lace Leather, American Rubber and Cotton Belting, etc., always on hand** 15mly30

# HUGH GIBSON,

MANUFACTURER OF

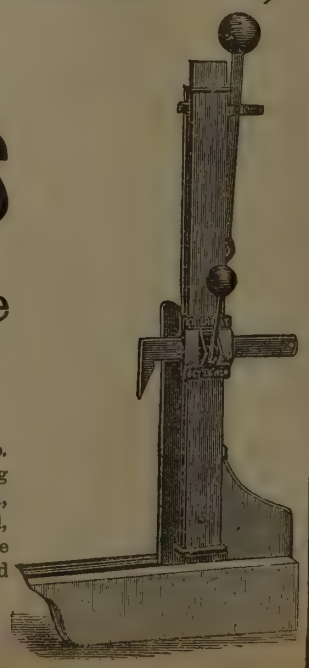
KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



EXCELSIOR DOG.

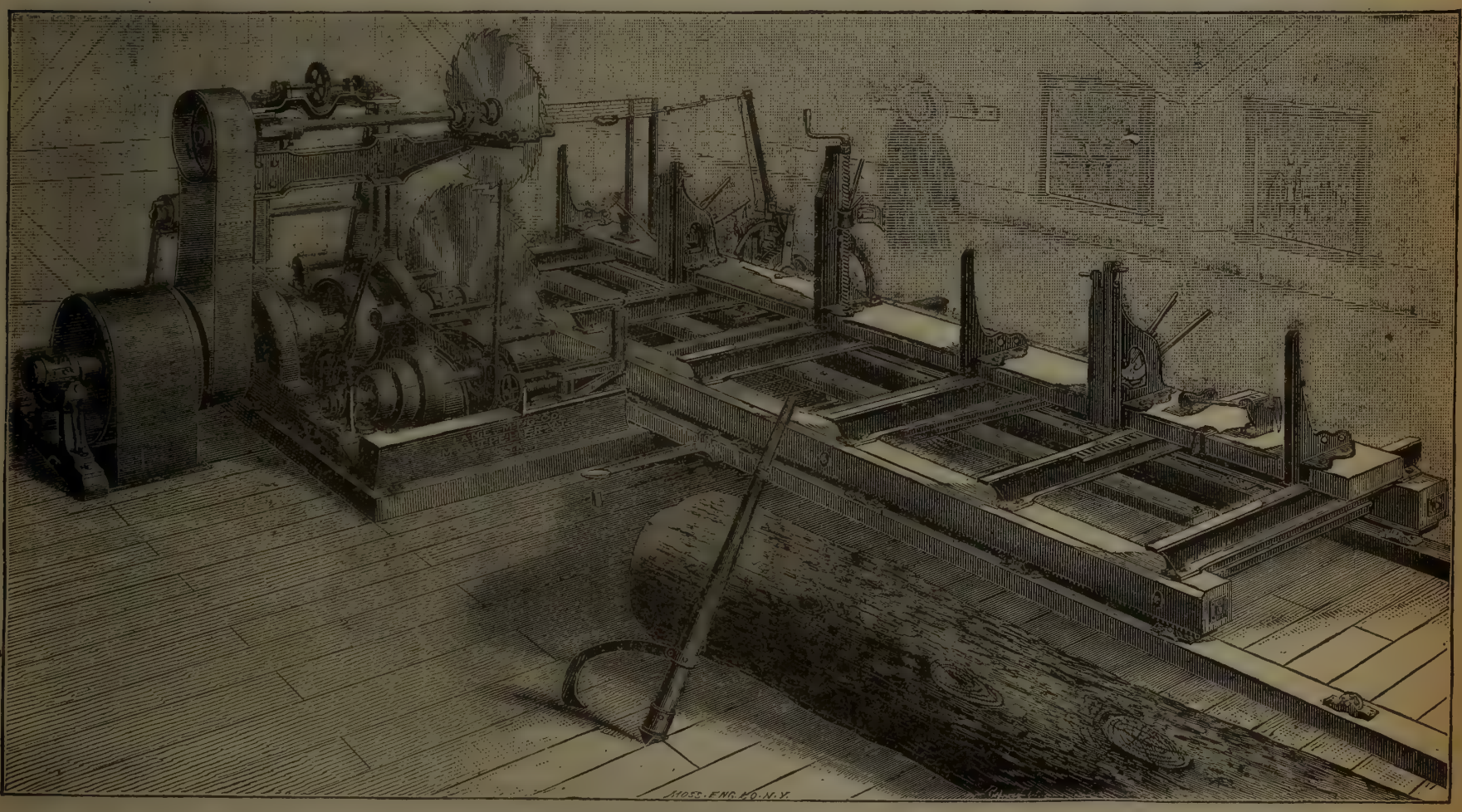
**Manufactured by HUGH GIBSON, CHATHAM.**

# THE LANE MANUFACTURING COMPANY!

## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS



Circular Saw Mills,
Saw Mill Set Works,
Double and Single Traveling Bed Planers, Shingle Bolters,
Bed Timber Planers,

Clapboard Machines,
Clapboard Planers,
Stationery Bed or Roll Feed Planers,
Drag Saw Rigs,

Shingle Machines,
Lath Machines,
Double and Single Power Feed Edgers,
Mill Supplies, Etc., Etc.

FOR DESCRIPTIVE CIRCULARS AND PRICE LISTS, ADDRESS:

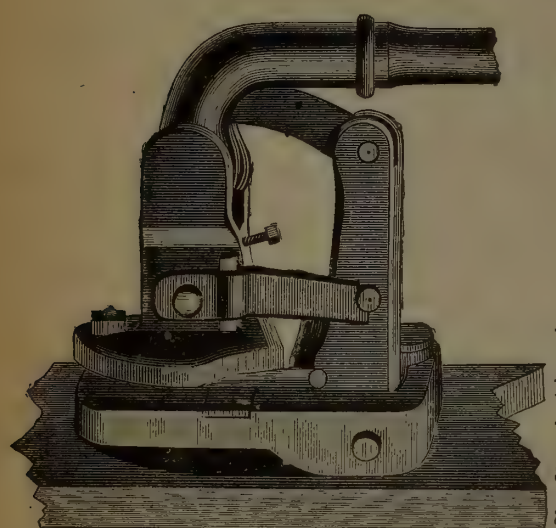
**LANE MANUFACTURING CO'Y, MONTPELIER, VT.**

# THE WM. HAMILTON MANUFACTURING CO'Y

LIMITED.

## Peterborough, - Ontario

## Manufacturers of Saw Mill and General Machinery.



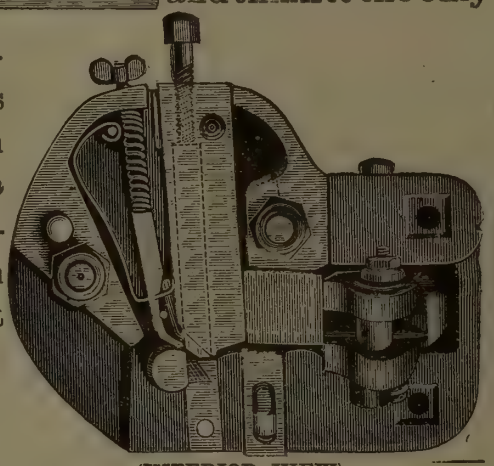
(EXTERIOR VIEW)

### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

*TRY IT!*

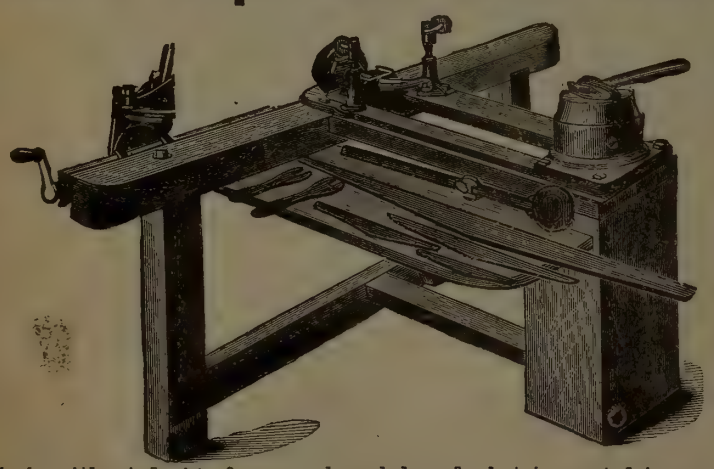
**Price $100, Cash 30 days.**



(INTERIOR VIEW)

## Covel's Improved Saw Bench

*Price $50, Cash 30 Days.*

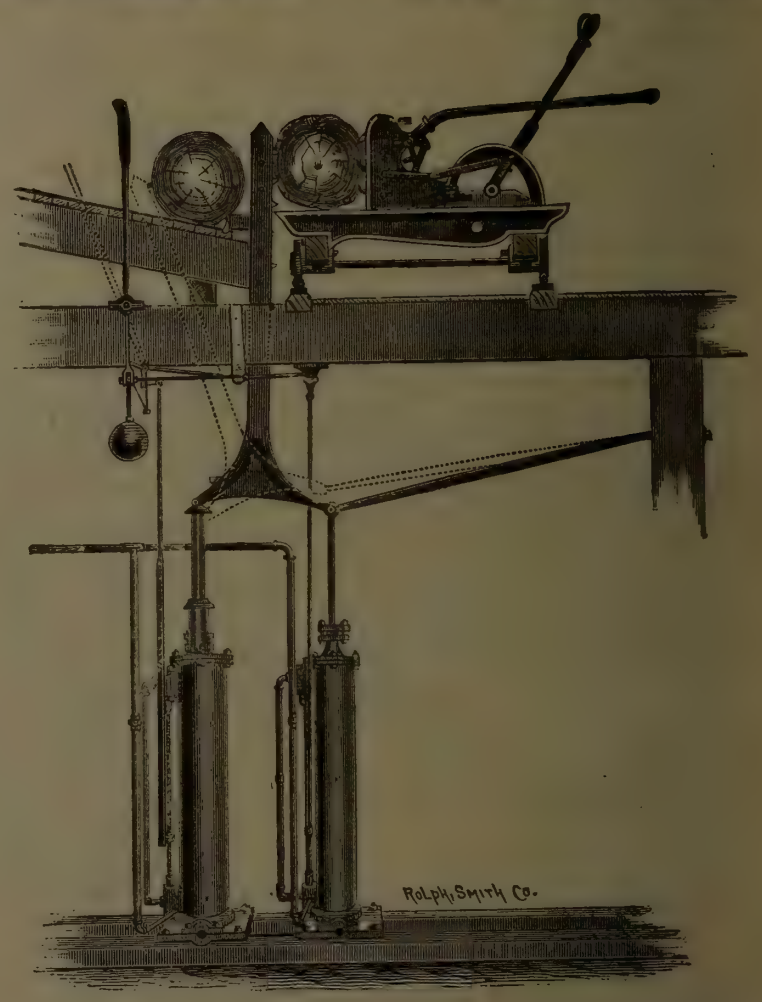


*Price $50, Cash 30 Days.*

This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition for the File Room.

### THE KALAMAZOO

## STEAM "NIGGER"




It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springimg Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

**We Guarantee each Machine in every Particular.**

# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

***IF YOU WANT***

— A —

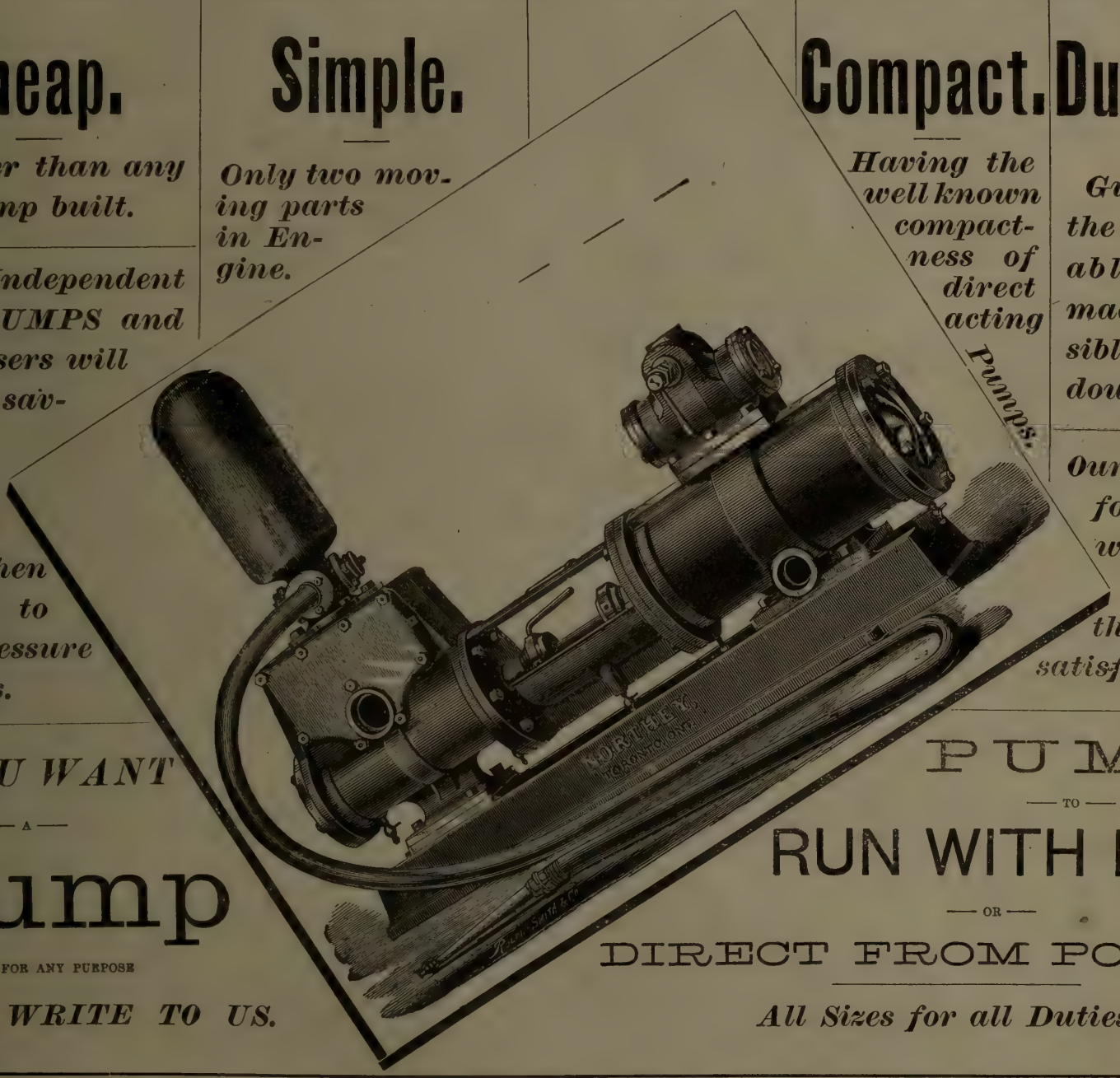
**Pump**

FOR ANY PURPOSE

***WRITE TO US.***

**Simple.**

***Only two moving parts in Engine.***




**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

PUMPS

— TO —

RUN WITH BELT

— OR —

DIRECT FROM POWER

***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

## SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

## NORTHEY & COMPANY,

Corner FRONT & PARLIAMENT STS., TORONTO, ONT.

# "POCONO" AND "PARADISE."

**So many of our Mill Men and practical Sawyers have formed their opinions as to the quality of TANITE EMERY WHEELS for SAW GUMMING by a trial of one class only—our old and well-known CLASS 2 wheels—that we deem it necessary to call attention to the above comparatively new classes. All Mill Men should understand that there is no absolute and accepted standard as to Saw Gumming Wheels. The preference for one or another make is as much a MATTER OF TASTE as is preference for cheese, or wine, or music. Most of our competitors make but one class of Saw Gumming Wheels. We make FOUR, and there is about as great a difference among these four classes of Tanite Wheels as there is among the wheels of different manufacturers. It is quite probable that some who failed to be satisfied with our Class 2 may find some one of the other classes exactly what they want. It is equally probable that some who have been regular and well satisfied users of our Class 2 or 3 Wheels may be still better pleased with our "POCONO" or "PARADISE." We suggest your sending an order for four wheels, one each of Classes 2, 3, "Pocono" and "Paradise," in order that you may settle the question which does suit you best. We are furnishing the "Pocono" largely, and the demand is largely increasing. For the "Paradise" there is but a light demand, but it comes from experienced men. We also make a Special Class to suit the requirements of the AUTOMATIC SAW GUMMING MACHINES so largely used in the North-West.**

THE TANITE CO., STROUDSBURG, PA.
MONROE CO.,

# ST. CATHARINES SAW WORKS!

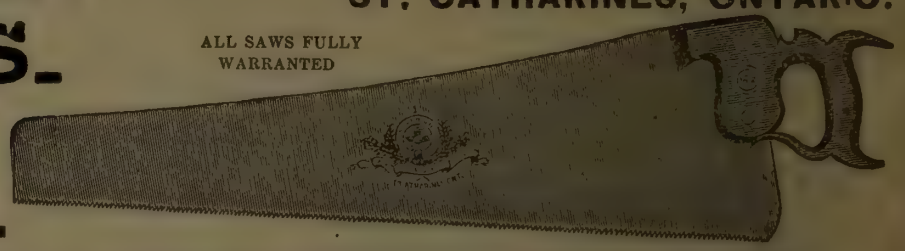
R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

ST. CATHARINES, ONTARIO.

## SAWS.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

## "SIMONDS" SAWS.

☞ *All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*

# HARRIS, HEENAN & Co.

124 AND 126 QUEEN STREET, - - MONTREAL.

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

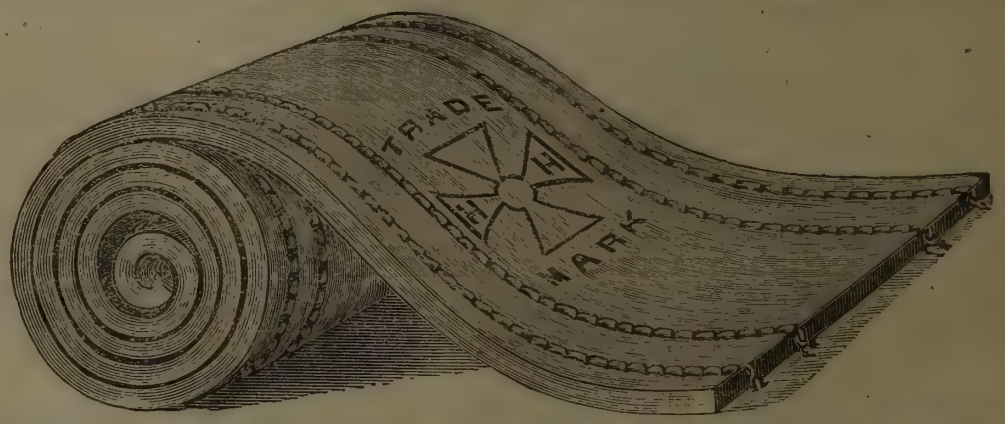
**TESTIMONIAL.**

IRA GOULD & SONS, CITY MILLS, Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




**TESTIMONIAL.**

PACK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISH ED SEMI-MONT HLY. | *The only Newspaper devoted to the Lumber and Timber Industries published in Canada* | SUBSCRIPTION $2.00 PER ANNUM

**VOL. 5. PETERBOROUGH, ONT., JULY 1, 1885. NO. 13.**


## DUTIES OF THE MILL FOREMAN.

I will endeavor to tell what ought to be the duties of a planing mill foreman, and in this connection say how he ought to be treated.

We should say in the first place that he *ought* to be a man of strictly temperate habits. You may say I am drawing the lines close here, but it is nevertheless true to the letter, and I emphasize it very emphatically. No man having charge of men or machines should ever step over the line of strictly temperance habits. Here is the base and foundation upon which they should stand solid and firm. One reason for this is, he wants a clear head at all times, no matter what the difficulty is; or, if there is no trouble, he wants his head always level and clear.

Granted that we have got that, the next thing we want is, that he should understand perfectly the mechanical part of his business. He should not only be able to do well every part of the work, but should be able intelligently to impart this knowledge to others in such a way that when he is not able to attend person ally to any particular work he wants done, he will know that when he puts any of his men to work it will be done right. He should also know every part of his machine in detail, so that when any part is broken he shall be able to make a free hand sketch of it, and, instead of sending the broken part to the concern that made the machine, he can send the sketch of it, which will be all that is necessary.

Sometimes, of course, a new machine is introduced into the works, and for a time he may know only the general principles of it, but just as soon as possible he should post himself up on every identical piece and know its value and use. Here is where many a foreman is lacking, and I very much doubt if there is one foreman in five throughout the country who, if their machines were pulled to pieces and thrown into a pile promiscuously, could go to work and pick out each piece and tell what part of the machine it belonged to. A great many times, from this cause, a machine may run badly, and he, not knowing just where to to locate the trouble, has to do as hundreds of our M. D.'s do, guess whats the matter and try a dose of this and a dose of that, till, perhaps by accident, he hits the right place. This is a poor way to get along. The machine doctor should be able to diagnose the place at once and apply the proper remedy then and there, without delay. Oftimes a break-down occurs and by a quick foresight the foreman can fix it up for the time till the hurry is over, or perhaps run till shutting down time, when the broken parts can be repaired so you can start up on time the next morning.

We should not expect everything of a foreman. He may be a good manager and understand his work to a nicety, and yet not be able to go to the forge and weld and hammer iron or make bolts or cutters, or run a lathe to turn up shafting, or fit up machinery. This is the blacksmith's part and every concern who have their own power should have a engineer who is a practical mechanic, and able to do all this kind of machine work. A foreman's time is generally more valuable about the mill keeping things in order and pushing the work along, han in acting the part of machinist and foreman too. When too many irons are in the fire some of them are pretty sure to get burned.

The main point is to keep things moving, and he should have the tact and energy, understanding and judgment to, as the saying is, "take the bull by the horns." It certainly is no objection to have a man who can go to the forge (and certainly no mill, however small it may be, should ever do without a forge and anvil, and a few pair of tongs) and do a good job; but, as I have remarked, it costs more than it comes to generally.

A foreman should be a first-class manager of men, and ought to understand human nature. My reasons for this are, that no two men can stand exactly the same treatment. One man has to stop every minute to tell a hard-twisted yarn; another is stubborn as a mule. One man must be given to understand that it is "root hog or die," and another if you rub his ears a little and say "s't boy," will do anything you want him to and more too. So every man, to get along nicely and get a fair day's work out of them, must have a little stimulant that just fits their case, and every foreman should understand this to perfection.

He should know just how to keep things moving. When one job is out another should follow it immediately and with just as little delay as possible. These lost moments soon count up into hours, and hours make days, and the time lost can never be redeemed. Machines are not like horses; we can never apply the whip and spur to make them go faster. The whip and spur come in by keeping them cutting. If we let two inches, or four inches, or a foot between the end of every board as it is fed into the machine, we soon lose a thousand feet, and many thousand feet are lost during the year in this way.

It should be a foreman's place to see that no spaces are left, and that the end of every board butts against the end of the one going out. A good reason for keeping the stuff close together is that the ends are not near as likely to chip as when space comes between them.

One thing more. A foreman should give all the men the same general treatment. While, as I have said, each man has an individuality or something peculiar to himself which we have to look out for, and take advantage of, still, we must give them all the same general treatment Don't let one come and fill your head about some one else—never allow that by any means. If you are not smart and sharp enough to detect any irregularities, let them go, and never make a difference in your men by allowing them to tattle and act as detective.

Do not seek favors for selfish ends, and give a better job to one just because he will clean the snow from your walk. He should know exactly what each man is capable of doing and set each one to that part of the work that he can do best.

I have said one more thing, but have still another to call your attention to, and that is, never, by the smallest act or word, do or say anything that shall cause you to lose one iota of the respect of the men. Here is the main hold of a foreman. You may be ever so smart, and sharp as a thistle, but if you lose the esteem and respect of your men you have lost your best hold, and no matter how much sail you may carry, or how deep the keel is, you will drift to leeward in spite of everything. I will also add here: Don't lose respect for yourself. Never do a thing that you don't care for your men to see. Never dodge round a corner nor through a door till one of your men has gone past for fear he will see you have some suspicious bundle under your arm. Nor let them see you go into any place of doubtful reputation. Don't go there; for if you don't nobody can ever see you there. You may think I am hauling down the lines of morality pretty taut. If I do, it is for the good of one of the greatest industries in the country.

A foreman should always be in his place, the first one about the mill, and enforce strictly and firmly the rule that every man should be in his place ready to take hold when the wheel starts. I am, I see, laping down the rules for those who have charge of mills of considerable size, so that the foreman does not have to put on the overalls and jumpers and feed machines and grind knives, and do much of the drugery about the mill. But the same principles should govern every case till you get down to just a single person. In a small mill a foreman must expect to do his share of the work, whether it is filing saws or grinding knives, or feeding machines, when necessary to keep work pushing along; but in no case should he be so confined to the work that he cannot properly see to other parts of the work needing his oversight and care. Many times proprietors of mills put too much such work on him, and I am free to say, that more is lost than made when such a course is pursued.

I thought I should be able to tell how a foreman should be treated in this article, but shall have to wait till next time.—*J. T. Langdon, in the Wood Worker.*

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THE loss of property by the late forest fires about Newberry, upper peninsula, Mich., was from $8,000 to $10,000. Among other property destroyed was wood to the amount of 5,000 cords, and several small houses.

## PROTECTING WOODEN BUILDINGS

A very simple method of rendering wood factory buildings of greater resistence to fire consists in filling the spaces between the studding with a grout made of sand, lime, and a large proportion of sawdust, mixed with sufficient water to flow slowly; it becomes quite hard, is a poor conductor of heat, and will not ignite although it is charred by exposure to an intense fire. This applies to a building already constructed, where it would be a difficult task to remove the sheathing, or lath and plaster, already on the inside walls. Where the studding is already exposed on the inner side, the space is frequently filled with brick, masonry, or large tiles made for such purposes. A new material made for such purposes in America is called terra cotta lumber, and is composed of top clay, which overlies the firebrick clay, mixed with equal or double quantities of sawdust. Every vestage of the sawdust disappears in firing, leaving the tiles very porous. Its use is not limited to filling walls, but it is applied to other purposes of construction where refractory materials are desired, as for short joists between iron floor, beams roofs, covering to iron columns and beams, sheathings for internally fired boilers and steam pipes. Small cylinders of this material are arranged with suitable coverings, filled with petroleum, and used for torches. Nails and screws can be driven into it, and it can be cut to dimension with edge tools as desired.—*Engineering.*

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### An Important Lumber Case.

The following appeared in Toronto *Mail* of June 15th:—

"SCOTT V. BENEDICT.—The case of Scott v. Benedict was concluded on Friday night before the Court of Appeal and judgment was reserved. The action is brought to establish a vendor's lien on 118½ square miles of timber limits in the County of Peterborough, the amount of property involved being valued at about half a million dollars. At the trial and subsequently the decision in the case was adverse to the plaintiffs, and they appealed to the Court of Appeal. Mr. T. H. A. Scott, one of the plaintiffs, conducted his own case, arguing for seven hours, and at the conclusion of his address was complimented by Mr. Justice Burton, who told him that his arguments would reflect credit on an old counsel. Mr. W. Barwick appeared for the defendants.'

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DURING the months of January, February, March and April, there was a marked increase in rail shipments from Muskegon, Mich. Lumber to the amount of 33,941,881 feet; lath, 11,104,688 pieces; pickets, 197,891, and shingles, 6,850,250 were shipped. If this ratio is maintained throughout the year, the aggregate will be 108,000,000, or about one-sixth the cut of the mills at that point. The shipments by rail from Muskegon last year were 50,000,000 feet.

## NEW ENGLAND SPRUCE.

There are but few of the lumber manufacturres in the West who have more than a vague idea of the spruce business, as it is carried on in the provinces and the eastern states ; neither do they begin to understand the extent to which spruce has become a competitor of white pine.

The lumber used in the construction of a building in the eastern states, is totally different from that used in any other locality. To the Pennsylvania man there is no wood for framing purposes equal to Hemlock ; the Michigan man is equally as firm in his opinion of white pine, but let either of the men advance his theories to the New England builder, and he would find he had met an equally strong adherent to the use of spruce. For framing purposes spruce is used almost exclusively For boarding in, it is the custom to use hemlock or matched white pine, according to the quality of the work desir ed. Hemlock is generally used for under and spruce for upper floors, and in many instances a preference is shown for spruce ceiling over white pine.

Th- most extensive spruce forests are in Maine and most of the lumber cut in that state is shipped by water to the various distributing points The mills in New Hampshire and Vermont supply the interior points and deliver necessarily by rail. The mills which make a specialty of flooring are generally equipped with the best of machinery for dressing, and not a few have first class dry-kilns. Undoubtedly the manufacturers of dressed spruce realize that to sustain the demand, much depends upon the quality of the mill work, and the result has been that, in the past few years, especial attention has been paid to that branch of the business. Dealers whose yards are located at points along the eastern coast, generally purchase of the manufacturers who ship from the Kennebec or Penobscot rivers. It is customary to make up cargoes of random sizes and rough boards, which of course are sorted for sizes at their destination. Schedules of special sizes are also shipped in this way. Floor boards, if dressed, are generally shipped in box cars. In the matter of dressing, some prefer flooring dressed one side and jointed ; others will use it dressed one side and matched. The latter method, in case the boards are not thoroughly dry, is undoubtely the better.

Some idea of the spruce business of the Boston market can be obtained from the returns to the inspector general's office for the first three months of the present year. During that time there was inspected 848,294 feet of spruce boards, and 1,171,167 feet of plank and timber. In addition to this amount there were many car loads of boards which arrived from mills in Vermont and New Hampshire which were sold from the car and no returns made. The present quotation on random cargoes—by that is meant ordinary sizes of framing timber—is from $12,50 to $13,50 ; special schedules by rail, $13.50 to $14.50. First clear spruce floor boards sell in eastern Massachusetts at $18 to $18.50, and second clear at $2 a thousand less.

From present reports there is every prospect of a scarcity of spruce logs at the mills. The season so far has besn unusually dry ; very little rain has fallen and the melting of the snow upon the mountains has caused the streams to rise but slightly. One of the most extensive spruce manufacturers on the the Kennebec river estimates that the stock this year, as compared with last, will fall short not less than 50,000,000 feet, while the cut on the Penobscot river will show a corresponding decrease. The result of this shortage must inevitably affect values at no distant day ; in fact some of the mills are already refusing to sell except for immediate delivery, and others are reported as out of the market entirely. Should a boom in spruce set in the chances are it would become contagious, and in some degree affect the value of white pine for the better.—*Northwestern Lumberman.*

"She tried her prentice hand on man,
And then she formed the lassies, O!"
"What is woman's worth?" asked a fair damsel of a crusty old bachelor. He did not know, so she said : W. O. man (double you O man). But a women feels worth little, if disease has invad d her system and is daily sapping her strength. For all female weaknesses, Dr. R. V. Pierce's "Favorite Prescription" stands unrivalled. It cures the complaint and builds up the system. Send two letter stamps for pamphlet, to World's Dispensary Medical Association, Buffalo, N.Y.

## SOLID AND INSERTED TOOTH SAWS.

I have read with considerable interest the letters in the *Saw Mill Gazette*, concerning the fitting and running of circular saws. There are nearly as many different views on these questions as there men. This I have learned in my travels among nearly all the lumber sections of the United States. But I am very glad to note, that with a few exceptions, the trade all agree in the belief that the most and best lumber can be made with a full swage and square tooth. There is, however, a diversity of opinion, as to the number of teeth required, the guage of saws that should be used. As to the former point, I think that what "A. W." said in your April number is correct, *i. e.*, that saw teeth should under all circumstances cut about the same amount of wood. My experience has been, that saws did the best and the most work, when the teeth removed ⅛ inch at each revolution. "A.W.N." does not give this theory. Mine demonstrated by long experience is this: There is a minimum as well as a maximum capacity to every circular saw to make good lumber. The minimum is reached when you reduce your feed so that the saw teeth are cutting the dust so fine, that a large portion of it is crowded back between the saw plate and the timber on each side, thereby causing the rim of the saw to heat and make bad lumber. I have frequently seen saws making bad lumber on a light feed, merely for the reason that the sawdust was cut too fine, and was crowded back, instead of being carried out by the tooth, as it would have been had it been coarser. But in all cases the teeth must have large throats or gullets to stand a heavy feed. And here let me say that the main secret of success, lies in carrying heavy feed. I have watched the circular saw year after year, and have seen its capacity increase from twenty thousand, to seventy-five, to one hundred thousand feet per day, and at each step of five to ten thousand, we all thought the limit had been reached. I now believe that the capacity of a circular saw is only limited by the capacity of the gullets to carry the dust out of the cut, be the feed five inches or five times five. Some mills have attained a 20-inch feed in some logs and made good lumber.

Without meaning to disparage inserted tooth saws, I am satisfied that the greatest hindrance to their ability to do as much work as solid saws, is the wearing off of the edges of the gullets of inserted teeth, thereby letting more fine dust crowd back and heat the saw, than is the case with the solid saw, which has its gullet squared up every time it goes on the emery wheel.

Some of your writers seem to think that the guage of a saw does not matter, as the tension must be put in with the hammer, no matter what the gauge. That is all true, but there is no getting around the fact, that the more steel in a saw, the more stiffness, and when backed up by sufficient power, the more ability to stand a heavy feed.

One word for the saw manufacturers. I think they require, and have indeed shown, more Christian forbearance than any other class of men. I will admit that have some preference among the different saws, but after using nearly every make, I can say that while from the best of makers I have had some saws that did not exactly suit, I have never yet had to condemn a saw because it would not make good lumber.—*Cor. Saw Mill Gazette.*

## Utilizing Sawdust.

If sawdust can be used as fuel successfully—and it is done every day in saw-mills in the United States and Canada—there should be but little difficulty in using slack or pulverized coal on steamships. A patent has been secured by an Italian engineer which may work nothing short of a revolution in the steam coal trade. He claims to have solved a system by which small coal, or slack, may be exclusively used on board oceangoing steamers. The Societa Navigazione Generale Italiana thinks of applying the method to their fleet of steamers, which number over 100 and consume annually 150,000 tons of large steam coal.

THE box factories of Oswego, N. Y., are cutting up nearly 300,000 feet of lumber a day.

## A NEW MATCH MACHINE.

Two Troy men have invented a machine which, it is claimed, will practically revolutionize match making. It has been operated to make 24,000 perfect matches in a minute, and its capacity is expected to reach 15,000,000 in ten hours. The veneer of pine wood is fed upon small platform and passes between rollers, which partly cut it crosswise the width of a match. From the rollers the veneer passes over the abrupt edge of a concave, where the splints are caught by a rubber roller, separated by the action of the roller and rubbed along over the acancave so that all the adhering fibre is removed Then the splints are carried by a chain, from which they are forced into a dipping web or strip of paper. The web containing the splints is then conveyed into a trough, wherein, by the action of a revolving wheel, paraffine is put on the end of each of the splints. When the paraffine is dry by passing through a heated chamber, another wheel, revolving in a phosphorous composition, applies the composition to the ends of the splints, and the webs pass to reels where they remain until dry.—*Chicago Industria World.*

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of May 1885, compared ; and also for the 5 months ending May, 1884 and 1885, compared :

MONTH ENDED 30TH APRIL 1885.

| | *Quantity.* | *Value.* |
|---|---|---|
| *Timber (Hewn).* | *Loads.* | *£.* |
| Russia | 34,665 | 64,489 |
| Sweden and Norway | 51,619 | 70,033 |
| Germany | 40,748 | 105,142 |
| United States | 18,325 | 61,460 |
| British India | 1,124 | 14,939 |
| British North America | 3,999 | 13,932 |
| Other Countries | 26,115 | 48,557 |
| Total | 176,597 | 378,552 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 90,581 | 190,410 |
| Sweden and Norway | 156,287 | 350,130 |
| British North America | 10,006 | 21,645 |
| Other Countries | 24,663 | 75,212 |
| Total | 281.537 | 637,397 |
| Staves, (all sizes) | 8,484 | 42,931 |
| Mahogany (tons) | 3,908 | 34,412 |
| Total of Hewn and Sawn | 458,134 | 1,015,949 |

FIVE MONTHS ENDED 30TH MAY 1885.

| | | |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 44,817 | 89,942 |
| Sweden and Norway | 204,968 | 278,871 |
| Germany | 115,957 | 287,406 |
| United States | 64,940 | 218,788 |
| British India | 16,759 | 232,524 |
| British North America | 6,006 | 22,119 |
| Other Countries | 167,153 | 234,366 |
| Total | 620,600 | 1,364,016 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 111,968 | 233,731 |
| Sweden and Norway | 344,413 | 758,237 |
| British North America | 25,732 | 55,859 |
| Other Countries | 127,195 | 392,037 |
| Total | 609,308 | 1,439,846 |
| Staves (all sizes) | 30,509 | 151,490 |
| Mahogany (tons) | 28,990 | 253,442 |
| Total of Hewn and Sawn | 1,229,908 | 2,805,862 |

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## BAND SAWS.

The Chatham Manufacturing Company have just completed and successfully started, a band saw mill for sawing large short logs. A band saw is simply an endless belt of very superior steel, one edge of which is serrated. The saws used in this new mill are about forty three feet long, five inches wide, and one-sixteenth of an inch thick, and are run on two pulleys, one above the other, seven feet in diameter.

The band saw machinery for this milll was built and supplied by Messrs. Sinker, Davis & Co., of Indianapolis, Ind., and to all appearances is perfect, and is very massive, weighing about 25,000 lbs. This mill will saw a stick of timber, five feet square, or side up or saw a log six feet in diameter. Its capacity is about 30,000 feet of soft, and 20,000 feet of hardwood lumber per day of ten hours. It is driven by an engine of seventy five horse power, but many years ago by the late firm of Hyslop & Ronald, and it is driven by three boilers, built at the same time by our esteemed townsman, Mr. Harry McPhilemy, from a very superior iron then known as the "Elephant" brand. It has been ascertained by actual examination and test, that notwithstanding the age of these boilers and engine, and passing through two fires, the repairs lately given them render them as good as new. They are sufficiently powerful to drive three band saws.

We heartily congratulate Mr. Van Allen, the president and manager, on the success of this new departure in saw mills, introduced at his instance for the first time in Canada. If he who makes two blades of grass grow where only one grew before, is public benefactor, certainly Mr. Van Allen is entitled to that appellation ; for, does he not make seven boards from what only made six before? Mr. Van Allen also enjoys the honor of first introducing in 1858, if not into all Canada, at least this part of it, the five feet and five and a half feet circular saws. The object then was, not to save timber, but to make as much lumber per day as possible, in which the circular saw was so far ahead of the mulley saw that it went out of use. Band saw mills, as now constructed, having almost—or equal—capacity for sawing to the circular, effecting as they do so great a saving of timber, making lumber very much smoother and evener, are as sure to supplant the circular and take its place, as the circular was to take the place of the mulley. The days of circular saws, yielding about as large a pile of sawdust as of lumber, are numbered—no doubt of it.—*Chatham Planet.*

**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhœa, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on June 1st 1884 and 1885, and also the Consumption for the month of May 1884 and 1885 :—

| | *Stock, June 1st. 1885.* | *Stock, June 1st. 1884.* | *Consumption for the month of May 1885.* | *Consumption for the month of May 1884.* |
|---|---|---|---|---|
| Quebec Square Pine | 200,000 ft. | 274,000 ft. | 70,000 ft. | 73,000 ft. |
| " Waney Board | 191,000 " | 211,000 " | | |
| St. John Pine | 42,000 " | 41,000 " | 17,000 " | 14,000 " |
| Other Ports Pine | 46,000 " | 64,000 " | 2,000 " | 1,000 " |
| Red Pine | 28,000 " | 48,000 " | 9,000 " | 2,000 " |
| Pitch Pine, hewn | 566,000 " | 434,000 " | 185,000 " | 270,000 " |
| " Sawn | 379,000 " | 632,000 " | 259,000 " | 309,000 " |
| Planks | 55,000 " | 72,000 " | 18,000 " | 28,000 " |
| Dantzic, &c., Fir | 68,000 " | 76,000 " | 34,000 " | 24,000 " |
| Sweden and Norway Fir | 42,000 " | 77,000 " | 6,000 " | 8,000 " |
| Oak, Canadian and American | 162,000 " | 211,000 " | 14,000 " | 28,000 " |
| " Planks | 153,000 " | 201,000 " | 89,000 " | 52,000 " |
| " Baltic | 11,000 " | 12,000 " | 3,000 " | 0,000 " |
| Elm | 11,000 " | 7,000 " | 0,000 " | 0,000 " |
| Ash | 25,000 " | 16,000 " | 1,000 " | 3,000 " |
| Birch | 80,000 " | 58,000 " | 59,000 " | 35,000 " |
| East India Teak | 66,000 " | 45,000 " | 31,000 " | 3,000 " |
| Greenheart | 49,000 " | 63,000 " | 25,000 " | 4,000 " |
| N. B. & N. S. Spruce Deals | 14,921 stds. | 10,080 stds. | 4,390 stds. | 4,043 stds. |
| " Pine | 539 " | 1,836 " | | |
| Quebec Pine & Spruce Deals | 2,133 " | 5,603 " | 760 " | 1,712 " |
| Baltic Red Deals, &c | 2,258 " | 3,857 " | 198 " | 375 " |
| " Boards | 68 " | 60 " | 22 " | 00 " |
| " prepared Flooring | 3,567 " | 3,977 " | 1,093 " | 952 " |

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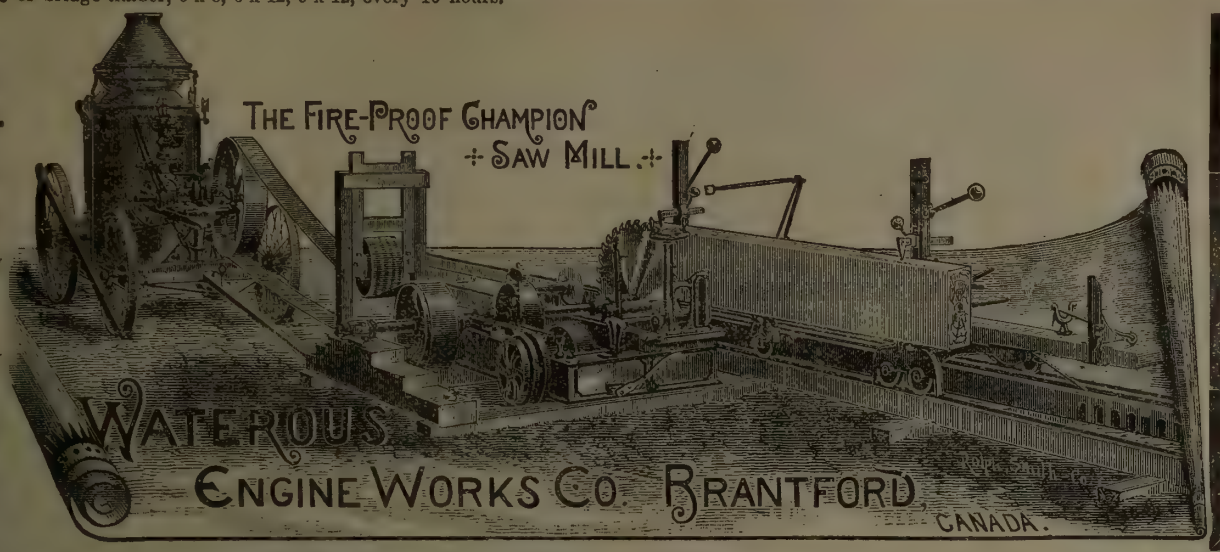


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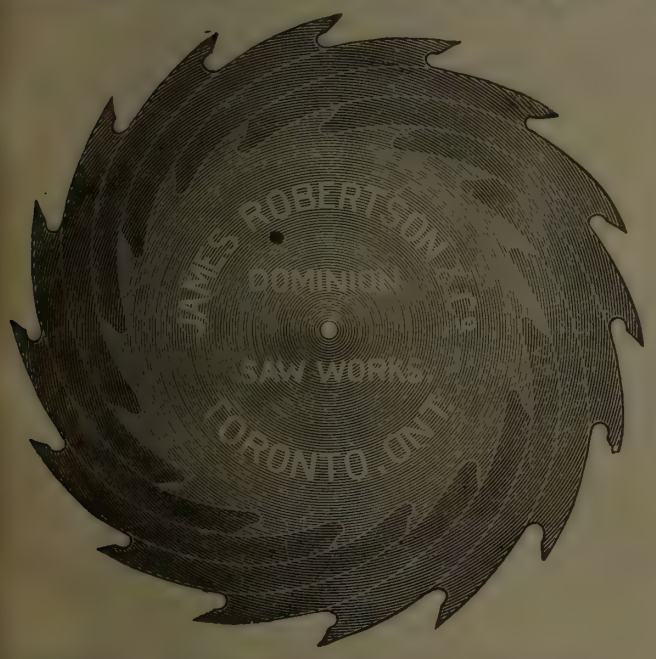


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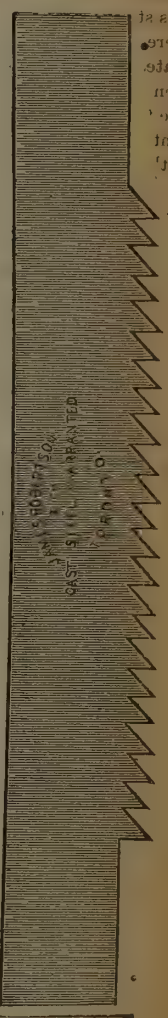

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Address : "THE CANADA LUMBERMAN," Peterborough, Ont.

## THE FORESTS OF CANADA.

Dr. R. D. Lyons, M. P. for Dublin, of whom we have already made honorable mention in previous number as an investigator of the timber resources on which this country depends for its future supplies, has, under the authority of the Earl of Derby (as Secretary of the State for the Colonies) obtained a variety of reports from the various provinces of Canada as to the state of its forests and the future outlook, apparently with a view to ascertain the probable powers of production that may be reasonably counted on as available for the customary requirements in that kind which this country is in the habit of importing.

The result is a Blue Book which has just been presented to Parliament "by command of Her Majesty," from which a good deal of useful information may be gleaned, and which has a special interest for the trade of this country.

The reports are furnished by the heads of departments and lieutenant-governors, and contain the official experience of the forestal authorities. While generally admitting that there has been a great deal of wanton waste in the working of timber limits in the past, there is nowhere to be traced any despair of the future as to an obsolute scarcity of timber, within any given number of years, and none of them seem to adopt *in extenso* the hypothesis of Mr. Little, whose predictions can only be explained as referring specially to the larger and choicer kinds of timber which are only to be come at now, with greater labor and expense than formerly, when they were not so far to seek. But Mr. Little put his own opinion on record in these columns eleven years ago, where it is stated that in thirty years from that date there would not be enough wood in the United States to make a fagot at the rate of consumption then going on. But from these reports nothing like that is to be appehended, and none of them venture a prediction as to the possible extinction of the Canadian forests within a cycle of years to come. On the other hand, some do not hestitate even now to pronounce the resources of the Dominion and British Columbia, its supplement on the Pacific side, as absolutely inexhaustible.

On this point Mr. J. H. Austin, of the Crown Land Office, Halifax, states:—

"After having made inquiry of several gentlemen engaged in the lumbering business in this province (Nova Scotia), I find that in all probability all, or nearly all, the timber lands will have been cut over for the first time by, or perhaps before, the expiration of six years from this date; but it does not follow that the timber supply will then be exhausted. It is found that by carefully husbanding those trees that are too small for conversion into lumber, at the timber of the first cutting, after 15 or 20 years a second cut nearly equal to the first can, in many localities be obtained, consequently, if it were not for forest fires, those lands which are carefully looked after would never become denuded of their timber."

We learn from this paragraph, what has not been pointed out by those who inculcate the the theory of forest extinction in the near future, viz., that the forests reafforest themselves, under ordinary circumstances, for instance, if not utterly destroyed to make room for agriculture, and further on in the report we find the following:—

"Suppose 18 in. diameter to be the standard adopted by a lumberman in felling trees, that is, he will fell no tree of a less diameter, and that he cuts from his land every tree of that dimension and upwards (generally about 50 trees to the acre), let the forest then rest for 15 years, when the same quantity of that dimension and upwards may again be taken. If active measures were adopted to put a stop to the ravages of forest fires, and to prevent the felling of trees of a less size than say 16 in. diameter at 10 feet from the butt, I am sure that Nova Scotia will continue to be a timber producing and exporting country for all time to come, as our best timber lands can never be used for profitable agricultural purposes."

The writer also refers to the "marvellous productiveness" of the timber lands of Nova Scotia, by reference to a small section of 8 or 10 square miles through which the Sackville River flows, thus:—

"Up to the year 1840 every house in Halifax was built of timber from that section, and, as every one knows, it has produced an enormous quantity of cordwood, house-frames, boards, deals, wharf logs, shingles, etc., ever since. Within three years the writer has travelled through every part of the section referred to, and it appears as far from exhaustion now as it did 40 years ago."

In Nova Scotia it seems there are no forestry restrictions, but every man is allowed to cut as he pleases; consequently the destruction of young trees is enormous. But forest fires are more destructive to timber in this province than all the lumbering put together. "The axe makes sad havoc, but may be reglated; fires are terrible." He further says that "the annual timber production of Nova Scotia has never been correctly estimated, but from returns obtained I know it to be greater by several millions of feet than is generally supposed."

Appended to this report, signed Mr. W. A. Hendry, of Halifax, some singular phenomena appear, in a table setting forth the result of an experiment on the comparative age and size of ten trees, from which it would appear that size is no certain criterion of age, as two trees of the same size and in the same neighborhood may be of very different ages. Here are the particulars:—

| | | | | | | |
|---|---|---|---|---|---|---|
| Red Spruce | 9 | in. | diam. | 48 | rings | (years). |
| Black " | 9½ | " | " | 51 | " | " |
| " " | 9¾ | " | " | 54 | " | " |
| Red " | 9¼ | " | " | 54 | " | " |
| " " | 10 | " | " | 58 | " | " |
| White Pine | 9 | " | " | 58 | " | " |
| " " | 16 | " | " | 72 | " | " |
| Red spruce | 16 | " | " | 43 | " | " |
| " " | 13 | " | " | 44 | " | " |
| " " | 12 | " | " | 47 | " | " |

Red spruce is unknown in this country by that designation, if it comes here at all; but it appears to be a fast growing wood, achieving a size in 43 years which it took 72 ysars for white pine to accomplish. But in explanation it is stated that "the difference in growth could well be accounted for by the different degrees of shelter."

The writer also states that—

"There is no reason to anticipate any sudden or even defined period for the extermination of our forests, but that they are gradually being exhausted is true, and it is proper to look this fact fairly in the face."

The report of Ontario, furnished from Toronto, by Mr. R. W. Phipps, Clerk of Forest Preservation, is to much the same effect, and he tells us that—

"With regard to the timber supply of the Dominion of Canada no accurate calculation can be made—a general idea can be given by observing that altogether the area of timber lands in the Dominion is calculated to be about 280,000 square miles."

This space of land would be equal to about 179,200,000 English acres; to pursue the calculation say producing 50 merchantable timber trees to the acre, and renewable every 20 years, the imagination would be lost inextricably in a whirl of figures that it would bewilder an actuary to apportion to generations yet to come, with a view to determine when these forests would finally give out. This writer, referring to the contrary opinions expressed by men of equal experience and authority as to the forest extinction theory, says:—"It is probable that over a great extent this territory many of the largest trees have been taken out. But it should be remembered that the forest has great reproductive power; that young trees continually replace the old, and that in 20 years' time trees, now but of medium size will furnish excellent timber;" and he further adds presently: "In my opinion there is no doubt that, if care be taken of the remaining forests of Canada, a very large portion of them will continue in a perpetually reproductive condition, capable of furnishing an annual yield equal to the present yearly cut." And he believes that when railroad and shipping facilities shall have given better access to markets, British Columbia will give timber of a size larger than most that has been heretofore exported. From this latter colony also we have a report, dated Government House, Victoria, from the Lieut.-Governor, Mr. C. F. Cornwall. In this we are told that the southern and western portions of the territory are a densely wooded country, both mountains and plains being covered with thick and stately forests. It is in this region that the Douglas pine (A. Douglasii) abounds, of which it has been stated that "so closely do the trees stand, and withal so tall and straight, that the united navy yards of the world might draw thence their supplies for years without more than partially exhausting these spacious and majestic forests." The report is brief, but very much to the point, and was furnished by the Governor's Executive Council.

One more quotation, we may venture to make from it: "In refutation of the assertion that Canadian forests are within six years of exhaustion, so far as this province is concerned, an extract may be quoted from the Government prize essay of 1872, by the late A. C. Anderson: "The forests of British Columbia are productive of an inexhaustible supply of timber of the most serviceable kind."

The report from Quebec alone which is most voluminous of all, would be worthy of an exclusive notice, but what we are most interested in learning for the trade is not the distribution of the woods and forests, their revenues, taxes, and obligations, so much as their capacity of production and accessibility, as we can only refer to the main subject of a report to give a general idea of its value. The rest must be sought for in the pamphlet itself. Though Quebec is a household word among timber merchants, who suppose themselve to know all that is necessary about it for the purpose of their business, they will, perhaps, be surprised to lean that in the northern part of the province are thousands of square miles of forest as yet untouched by the woodman's axe. The whole area of the territory comprises about 117,800 square miles, a considerably larger space of land than England, Scotland and Ireland, with all the islands around them, and though the forests that adjoin the banks of the St. Lawrence have doubtless been denuded of their finest timber at various times, it would be a false conclusion to assume that they have been therefore annihilated. Of the 177,800 square miles of territory not one-fourth, it is stated, will ever be fit for agriculture, but must remain from its very nature forest, and devoted to the production of timber, by reason of its climate, soil and seclusion. The writer says: "On the southern tributaries of the Saguenay that interlace with those of the St. Maurice there is much good soil, and where the trees fit to make saw logs of have been cut away the small trees left, if not destroyed by fire, will soon be of a useful size. This remark is applicable to all timber regions, as I have had ample occasion to notice. In one case, where no error could occur, a small timber berth with well marked timber lines, which had been stripped of every tree fit to make a saw log, under an able manager, was cut over again by him eight years afterwards when by the increased size of the small trees formerly left as unfit a greater number of saw logs were made from them than was got by the first cut eight years before. On the Gatineau I passed through an extensive grove of young red pine trees of fine growth, that had been previously three times completely cut over since the commencement of lumbering there." Is not this the secret why the European forests have lasted through all ages, and are in great abundance still?

We cannot bring this brief notice to a close without referring to one important omission from Dr. Lyon's reports. While Ontario, Quebec, and Nova Scotia are done justice to, there is no mention whatever, good or bad, of the great timber-producing province of New Brunswick. An account of our North American forests, without any notice of New Brunswick is like the play of Hamlet with the part of Hamlet omitted by particular desire from the performance; for New Brunswick is perhaps as a timber-shipping province the most convenient and indispensable of all to this country, and its area is one-third larger than that of Nova Scotia. The port of St. John is the first to open in the spring, and the last to close in the autumn, as the waters of the Bay of Fundy are never frozen. That this omission is accidental, from a parliamentary paper, seems very unlikely, but that it should be by design, and without a word of explanation seems still more unaccountable. At all events, the fact remains.

Dr. Lyons has added a *precis* of the regulations that govern settlements, occupation and purchase of lands, timber limits, &c., which will be found very useful to emigrants and others; and there is a map to show the proportion of forest land remaining in each townland or county of Ontario. The book contains 35 folio pages, is published by Messrs. Eyre & Spottiswoode, end may be had through any bookseller for the small price of sevenpence-halfpenny.—*Timber Trades Journal.*

## ITEMS FOR RECORD.

Manufacturers who use large belts are often at a loss to decide which way of the leather will stand the greatest strain. Generally speaking, a belt will stretch much more evenly the long way of the hide, but for actual tension, accross will stand the most; while to combine evenness of expansion and strength a hide cut diagonally, answers best. Besides imparting to large belts both these properties, a hide will cut with less waste when cut diagonally than any other method that will use the best parts of the same. Some persons, and we judge them more theoretical than practical, advocate the idea that large belts will wear longer and retain their strength better by running continuously in one direction; that is, when once used, the direction of running should never be reversed; but the closest examination fails to reveal any tendency to displacement of parts, providing the belt is not too heavily strained. This we find to be the principal source of dissatisfaction, and the cause of premature uselessness. One might as well expect to push an engine and boiler with an estimated power of four horses, the do the work of one with a six hor-e capacity, as to drive the machinery requiring a medium sized belt with one light. There are certain limits of various strengths of all substances, and when we go beyond this limit, we have violated a physical law, the penalty being a displacement of particles, an overstrain which has wrought more injury than years of actual wear; and what is true regarding belts, applies with all its force to all motive power and machinery of whatever name or nature. In basing calculations it is always best to make provisions for at least one-third reserve power, it being a fact well known to nearly everyone, that rarely, if ever, less power is required than the estimate when the plant was built first on paper; but generally a little, sometimes considerable more is needed than the engineers calculated. Again, any power can be more economically transmitted with a liberal reserve than when run to the greatest capacity. Hence it is safe from a financial standpoint to have all belts and machinery at least twenty-five per cent. stronge than ever expected to use. We might carry the argument still farther, and mention the general cramped condition of buildings, warehouses, lots, and the like; for with an experience dating back no few years, we have yet to see an original plant built for the express purpose of any specific line of trade or manufacture, that was ever too large for the successful business that followed. With these as with machinery and means of transmitting power, it is safe, as a rule, to make liberal allowance for the increased demands for space when things are all in place and moving. Many an otherwise successful concern has had to sell goods in a poor market simply because they had no the neces sary room in which to store their accumulations. Others have been made the subjects of extortion by grasping owners of adjoining properties simply because, in their haste to build and get to work, they neglected to make precautions to protect themselves against the rise of property so enhanced by their own success.—*Lumber Trade Journal.*

**Especially to Women.**

"Sweet is revenge especially to women," said the gifted, but the naughty, Lord Byron. Surely he was in bad humor when he wrote such words. But there are complaints that only women suffer, that are carrying numbers of them down to early graves. There is hope for those who suffer, no matter how sorely, or severely, in Dr. R. V. Perce's "Favorite Prescripton." safe in its action it is a blessing, *especially to women* and to men, too, for when women suffer, the household is askew.

### A CHAT ABOUT PULLEYS.

How do you like wooden pulleys? Don't the belts seem to take hold better with wood than with iron face? We vote for the wooden pulley, but we don't like the wooden pulley hub. A pulley built upon a great big cast iron flange is rather an uncomfortable concern to deal with. You can't get hold of a big six-inch wooden pulley. There are no arms to put a chain between, or to reach through while you are at work around it. We have got first-rate results from a wooden rim with iron arms. We used to run a planer. The feed belt kept slipping on a 24-inch iron pulley. We took a hammer and knocked the rim off. Care was taken not to break the arms or thing would be no good. Got out a lot of wooden segments. Made them not over ¾-inch thick; nailed and glued up a pulley having half the width of face required and then laid on the old hub and arms. Cut the next layer of segment away ¾-inch from the arms, and drove in a few nails to keep them from shifting out of place. The hub was centered before the nails was driven. Suppose you try it.

Put on the rest of the rim and then pour in melted brimstone around the edges of the arms. Don't be afraid that it will not hold, we have put up six-foot pulleys in this manner, turned them off true, balanced them, and they run ten years and are running to-day. Don't ever run one of these pulleys without balancing, and for that matter, don't ever run and pulley, or cutter head unless it has been balanced. Very often a machinist gets left when he balances pulleys. Supposing a pulley is thick at one edge, thin at the opposite edge, and on the opposite side there are thick and thin places, but the thick places are on opposite edges of the pulleys. Now when the machinist puts an arbor in this pulley, and hangs it on the levelling horses, the pulley balances exactly. There is a thick place and a thin one at opposite parts of the circumference and they offset each other. It was caused by the molding of the pulley. By some means the cope got moved. It offset a little on the drag when the mold was closed, so there are two thick and two thin places after the pulley is turned, for the machinist balances the error as much as possible. When this pulley is started up, it tries to turn around parallel with the shaft. In fact it "wobbles endwise." There is but one way to balance such a pulley. I must have two or more pieces of iron rivited to the rim. There is but one way of finding the exact spots where they should be put and that is by running the pulley while suspended upon a pivot or point which has a bearing exactly in the centre of the bore of the hub. This leaves the pulley free to turn in any direction laterally, and the part needing weight will move in a path some distance from a plane passing through the point of suspension. The wrought iron pulleys are good in this respect. They are uniform and so run very true. A wooden rim pulley can be balanced very easily by driving in nails until the needed weight is added, but when a half pound or so is needed, it will pay to bore a hole in the inside of the rim and drive in a chunk of round iron. Don't bore the hole from outside of the pulley, we have seen plugs of iron fly through window glass from this cause.

In fitting an iron arm with a wooden rim, we don't want to stand the pulley on edge to pour in the brimstone. We could only pour one arm at a time in this manner and would run the risk of moving the hub out of centre. We will bore a ½-inch hole down into each pocket and then fit a piece of cardboard around each arm, tack it in place and reinforce with putty. We can serve each arm in that manner and then pour them all one after another. A wooden pulley should be turned down nearly to size and balanced. If it is very badly out of truth it should be nearly balanced before turning at all. Before the finishing touch is put on the pulley must be put in good balance, for it is impossible to turn a pulley nicely when one side is ½ or 1½ lbs. the heaviest. Heavy pieces of wood, knots, etc., prevent making a pulley that will not need balancing. Nails are not necessary in making a wooden pulley. The very best are made without them, and are put together entirely with glue. To do this in good shape a coil is necessary for heating the stock, and a big press or a lot of clamps for squeezing out the glue. Don't try to glue up a big pulley out of cold stock. If you can't get the wood hot enough to keep the glue melted, then you must put in nails or you may have an exploded pulley, and segments of that rim will be "too numerous to mention." When we get one pulley in place, we find the belt will not run where we want it too. Something is wrong. Something is out of line or level, or our pulleys are not turned true. Perhaps one edge is larger than the other. No matter what the trouble is, hunt it up, and apply the remedy right where it belongs. Don't walk up to a belt which is running two inches off on one edge of a pulley, and look at it ten minutes and then feel too tired to fix it. The next time you see that belt it has bent one edge against a hanger. The sight of it makes you lazy again and you nail up one of Slipshod's guide rods which consists of a 2x3 edging. It runs so two weeks. It might have run until this time for all you cared if it had not cut the "guide rod" clean off and run off between two close pulleys, where it caught, broke in two, wound up and threshed itself all to pieces. Perhaps the belt pulls down ten or fifteen hundred pounds of pulleys, shafting and hangers, and you have a $200 repair job to pay for, all through a little chronic "tired laziness."—*J. F. Hobart in Lumber World.*

### FOREST FIRES IN MAINE.

We find the following in *The Industrial Journal* of June 5th:—

"The recent destruction to property in Maine by forest fires, which fortunately have been extinguished by the heavy rains of the past week, bring forcibly to mind a question which has never received half the attention, in this section at least, its importance demands. Every year in this state thousands, and in some years millions, of dollars' worth of property—standing timber, mills and farm buildings, and occasionally entire villages—is swept out of existence, industrial enterprises of various kinds bankrupted or seriously crippled, capitalists frightened away from contemplated investments, and the face of the landscape hideously defaced, through the agency of forest fires. Of what use is it to talk of the preservation and propagation of forests, and the waste of timber in cutting, as long as whole townships are being devastated by the fiery element every year? Clearly, while such conditions exist, the owner of timber lands have very little inducement to cull his growth instead of shipping it, or to leave young timber standing until it shall have acquired greater value by reason of increased age; the risk is too great. Rather will he be inclined to strip his tract of whatever may be of value upon it, while yet happily the fires have left it untouched.

"The exasperating feature of these forest fires is the fact that, in nearly every instance, the most simple and ordinary measures of caution on the part of whoever is responsible for starting them would have prevented their occurence. In 99 cases out of a hundred their origin is directly traceable to gross carelessness or negligence, and in the hundredth case to wilfullness. The most prolific sources of forest fires, and the only ones which need be considered, are locomotives, brush burners, campers and sportsmen. As regards the railroads, modern science has provided appliances for arresting sparks and rendering them harmless, and the state should permit no train to be run without one wherever its authority extends. This danger, then, might be easily removed, as railroad managers are supposed to be men of at least average intelligence, and to have more or less respect for state laws. The other classes are more difficult to deal with, as many of them are ignorant and shiftless, and a still larger proportion care little for laws of any kind so long as they can violate them without fear of punishment. Nevertheless there should be laws, as in fact there are, holding the originator of fires strictly responsible for all damage caused by or resulting from his carelessness and stupidity. But these laws should be more strictly enforced by efforts on the part of the state to investigate the origin of each disastrous fire, fix the responsibility and bring the guilty party or parties to justice. A few noteworthy examples of t ud, tending to show that the authorities mean to enforce the laws, will have a wholesome effect on reckless kindlers of bush or camp fires.

"Now that the camping ont season is at hand, city sportsmen and rusticators should be made to understand the necessity of exercising the utmost caution in kindling fires for any purpose, and where one has been started to be sure the last spark is extinguished before leaving it. The laws of New Brunswick are clearer and better than ours in relation this matter, and although the rules laid down have, of course, no legal force in this state, they are sensible and simple enough to meet the approbation and be observed by every true sportsman and worthy citizen. They direct that whoever, between May 1st and December 1st, may start a fire in or near the forest, shall: First, select a locality in which there is the smallest quantity of vegetable matter, dead trees, branches, brushwood, and dry leaves or resinous trees; second, clear the place in which he is about to light the fire, by removing all vegetable matter, dead trees, branches, brushwood and dry leaves from the soil within a radius of five feet from the fire; third, exercise and observe every reasonable care and precaution to prevent such fire from spreading, and carefully extinguish the same before quitting the place. Another section provides that any person who shall throw or drop any burning match, ashes of a pipe lighted cigar or any other burning substance, or discharge any firearm, within any forest or wood lot or other place where there is vegetable matter, shall be subject to the penalties imposed by this act if he negligently omit wholly to extinguish, before leaving the spot, the fire of such match, ashes of a pipe, cigar, wadding of the firearm, or other burning substance. It is further provided that every person that may be in charge of a party requiring camp-fires for cooking or other purposes in the forest shall provide himself with a copy of the law and read and explain it to his companions."


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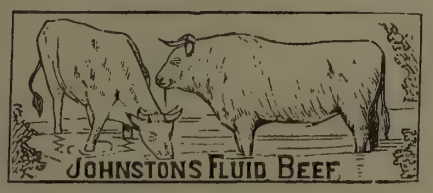


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The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUH, Ont., JUNE 15, 1885.*


A LOCAL paper says that the Grand Rapids furniture manufacturers saw 20,000,000 to 25,000,000 feet of hardwood a year.

THE Port Discovery, W. T., Mill Company, has lately been buying logs on Samish islands, Puget sound, at $5 a thousand.

IT is stated that a Duluth lumber concern is figuring on shipping 4,000,000 feet of lumber to Buffalo, N. Y., at a freight rate $2 thousand.

RATHBUN & Co.'s mill opposite Belleville broke the driving wheel on June 12th, and was compelled to shut down for some days. The mill employs 75 men.

THE price of hemlock bark in Milwaukee dropped recently from $7.50 to $6.87½, and the Ludington, Mich,, buyers, reduced their paying price from $5 to $4.50 a cord.

THE first lot of lumber to arrive at Selkirk, Man., this season, from Lake Winnipeg, was towed in by the steamer Ogema June 6th. It was destined for the Winnipeg market.

DURING the present season 800 car loads of square timber has been shipped from points on the Buffalo, Goderich & Lake Erie railroad, and the Grand Trunk west of Stratford, most of it going direct to Quebec direct.

FIRE in the forest between Bristol station and Tawas lake, in Michigan, consumed considerable pine, tamarac and cedar on a tract called the Dole pine lands.

THE schooner O. M. Nelson, lumber laden, from Ludington, Mich., collided with an unknown sailing craft, in mid lake, off Sheboygan, on the night of June 16th. The jibboom, bowsprit and cutwater of the Nelson were carried away, with all her head gear. By rigging a temporary bowsprit the disabled vessel worked down toward Milwaukee, got a tug, and was towed into that port.

THE Big Mill at Deseronto cut 2,841 logs on Tuesday, the largest cut the mill ever made.

THE saw mill destroyed last year by fire at Parry Harbor, Ont., has been rebuilt and is once more running. It employs nearly 300 hands.

THE Parry Sound Lumber Company have transferred all their lumber interests in Conger and Cowper townships to the new Conger lumber company.

IT is said that the standing timber greatly suffered by the recent forest fires in Michigan, and that in some instances saw logs, partly covered by water, lying with one end in a stream, were burned so that nothing remained above water but the charred end and a heap of ashes on shore.

A SAN FRANCISCO paper says that the claim of the Truchee Lumber Company that the altitude of their logging camp, 7,500 feet, is greater than that of any other in the world, is overshadowed by that of the Great Sierra Mining Company, which has a logging camp and mill on Lee Vining creek, Mono county, at an altitude of 10,500 feet.

THE Cheboygan Lumber Company, with mill at Chebogan, Mich., is driving piles for increased booming ground at that point. This has become necessary to accomodate the Spanish river, Ont.,logs, which will soon begin to arrive. The company has purchased limits including 80,000,000 to 100,000,000 feet of pine in Spanish river district, and intends to tow the logs to Cheboygan for sawing, thus avoiding the duty on lumber.

NORMAN'S Electro Curative Belts are the finest remedy known to medical science for the permanent cure of neuralgia, sciatico and all diseases arising from nervous weakness. Testimonials of cures affected on residents of this vicinity can be obtained from Mr. A. Norman, medical electrician, No. 4 Queen street east, Toronto. He has lately invented a new and more perfect appliance than any yet produced, a description of which is given in the advertising columns. His electro curative truss is unequalled for rupture. Write him.

WE have had a visit from Mr. Playfair, of Sturgeon Bay, who is using one of the twin engine steam feeds made by the Wm. Hamilton Manufacturing Company, of Peterborough, and he reports that it is giving complete satisfaction and is enabling him to cut 15 M more lumber per day than previously by the friction feed. He thinks it uses less steam, and, therefore, must be a great improvement on the old feed. A description of this machine and an illustration of it will be found in the last issue of the CANADA LUMBERMAN and is also advertised in the present issue.

## A BIG BOILER.

The big boiler which was being built at the Wm. Hamilton Manufacturing Works last winter, previously referred to in this paper, is now completed and the parts put together. It stands on a railway track in the boiler shop in the same position as that when the drilling was done and is daily visited by numbers interested in this kind of work. It is eight feet in diameter, two corrugated furnaces, one hundred and forty-seven three-inch tubes and is twelve feet long. The furnaces are large enough to allow a person to pass through one and out of the other quite comfortably. While under construction it successfully passed the 100 pound pressure examination. This is the largest boiler ever turned out of these works and one of the largest ever built in Canada. It was made for the Georgian Bay Lumber Co.'s steamer Magnetewan and will cost approximately $4,000. In building it a special drilling machine was built and the holes drilled, not punched, through the several thicknesses of iron composing the shell. It was built under the superintendence of Mr. Richard Reeves, foreman of the boiler shop, and speaks louder than words as to his ability as an architect in this line. It will remain in its present position for several days.

## BELTING.

WE would call the attention of proprietors of saw mills and other mills to the advertisement in another column of F. E. Dixon & Co., of Toronto, the well known manufacturers of leather belting. Ever since the establishment of this firm, in 1872, it has been their steady aim to furnish at a reasonable price at least as good belting as can be procured from any other makers, whether in the United States or elsewhere, and the steadily increasing demand for their famous *Star Rivet* Belting is a sure proof of the excellence of their goods. At the Provincial Exhibition held in Ottawa, in 1875, the first prize was awarded to goods of their manufacture, though placed in competition with belting manufactured by Messrs, J. B. Hoyt & Co, of New York, and other makers; and theirs is the only belt manufactured in Canada which obtained a diploma and medal at the Centennial Exposition, at Philadelphia, in 1876 They are specially noted for the good quality of their large double driving belts which cannot be surpassed for easy running or durability. There are several of these belts in one of the largest saw mills on the Ottawa river which have been doing steady work for nine seasons and are apparently good for at least as many more. They can also point to a fourteen inch double driving belt which has been in steady use in a large planing factory in Toronto since December, 1873, and seems good for several years yet, besides a large number of other belts of various sizes up to 36 inch, which have been in use for several years and are giving perfect satisfaction. Their recently patented *Lap Joint*, which entirely prevents the turning up of the ends of laps after having been in use a short time, particularly when running on small pulleys, is an improvement which will at once commend itself to all who use belting. The Messrs. Dixon & Co. are constantly adding to their plant and machinery, and are determined to spare no effort to keep abreast of the times in this particular line. They are at present engaged manufacturing a 36 inch double driving belt, 90 feet in length, for the Toronto Electric Light Company.

## RAFTS ARRIVED.

The Quebec *Chronicle* says that the following rafts have been entered at the Supervisor of Cullers' Office, Quebec since June 1st:

June 6—Chas. Bertraud & Co., birch, Tanguay's wharf.

Timmons & Gorman, white pine, etc., Cap Rouge.

Stokes & Kelly, walnut, Hadlow cove.

D. D. Calvin & Co., oak, etc., sundry coves.

June 9—M. O'Shaughnesy, deals, Nicolet.

Price, Bros. & Co. deals, Windsor mills.

R. R. Dobell & Co. (Flatt & Bradley lot), elm, &c., Dobell's cove, Sillery.

June 10—Allen Gilmour & Co., white pine, Indian cove east.

Cook & Oibbons, elm, etc., St. Michael's cove.

June 12—Cook & McGibbon, elm, etc., St. Michael's cove.

Allan Gilmour & Co., white pine, &c., Indian cove east.

June 16—Smith, Wade & Co., ash, etc., sundry coves.

June 17—Tardiff & Trudel, birch, Commissioners' wharf.

RAFTS ENTERED AT THE SAPERVISOR OF CULLERS' OFFICE.

June 18—T. Buck, white pine, oak, etc. Woodfield and Ottawa coves.

D. D. Calvin & Co., oak, pine, etc., sundry coves.

The Quebec Timber Company (Limited), birch, Commissioners wharf.

### Rafting Timber.

This season there has been a large quantity of timber rafted at the dock, Belleville, and about fifty men are now employed there. One dram for Mr. Thompson will leave for Quebec as soon as one of Balvin's tugs arrive and the the Collin's Bay Rafting Company with twenty men are making preparations to raft his drams of timber which is expected here from Georgian Bay on Saturday. Mr. Buck is also carrying on operations in this line as busily as ever.—*Intelligencer, June 26.*

## LIVERPOOL.

The *Timber Trades Journal* of June 13th says: It might be assumed, the Whitsuntide holidays having become a thing of the past, that business would have shown some signs of life and animation; but, so far from this being the case, it is doubtful whether it really is as good now as before the vacation. The Ministerial crisis may perhaps affect trade in some degree, but it is difficult to see how it could depress it to a lower depth than it now touches.

The late opening of the shipping season in the St. Lawrence ports, by delaying the arrival until late in the season, will give an opportunity of present stocks being worked down, but the deliveries are not what one would like to see going on, and do not make that marked impression which is so desirable. The local interest in the Manchester Ship Canal Bill keeps up its intensity in all the surrounding districts which hope to benefit by the scheme if it be carried out. One point that has always been made much of by the promoters is that vessels would demand little, if any, extra rate of freight for carrying the goods up to Manchester, thus saving all railway or other transit charges. Such an assumption carries with it little common sense in the view of practical men, and has just received a severe blow in a petition presented by the Liverpool Steamship Owners' Association, representing about one million tons of ocean going and coasting steamers. In the document the petitioners say, "This is a complete error," and then proceed to point out by the danger and delay consequent upon the journey through the canal, increases in rates of insurance would be demanded, and the loss of time, together with other contingences, would come to considerably above £100 per day per ship.

A strong committee of the House of Commons with Mr. Forster as chairman, will proceed to take evidence next week, and the opposition is likely to be quite as strong and more numerous than before.

LIVERPOOL TIMBER SALES.

On Friday last, the 5th inst., Messrs. Duncan Ewing, & Co. offered the fine cargo of Apalachicola hewn pitch pine timber just landed ex *Harold*, and though there was little disposition to bid for it at the commencement of the sale, it was eventfully cleared up.

Several parcels of East India teak planks were also offered, but did not elicit competition, and they were consequently withdrawn; but it is reported several lots were sold immediately afterwards by private treaty.

On the same day Messrs. Farnworth & Jardine offered two cargoes of St. John, N. B., spruce deals in store, of which a fair proportion was sold; but prices showed little variation from the recent quotations, the brokers holding these goods with a firm hand.

## WINNIPEG.

The *Commercial* of June 16th says: There is no word as yet of the mills starting this season. Business is still very quiet and the season's trade is not likely to amount to anything, while dealers seem to be satisfied to look upon this summer as somewhat of a blank. No outragous cutting is reported, but cash buyers can make good purchases, altogether this trade is not in a satisfactory state at present.

## QUEBEC.

The *Chronicle* of June 20th says:—The timber market is quiet, but the sales reported during the past week are at fair prices, and should be satisfactory to the producers. In white pine some five or six rafts have changed hands. Old rafts of 41 to 43 feet, at 19 cents. A choice new raft of 56 to 57 feet at 29 cents. And one or two other rafts at prices which have not transpired.

DEALS.— Spruce— About 40,000 standards were disposed of as follows:—

$45.00—1st quality, 3-inch and 2-inch spruce.
$27.00—2nd " " " "
$23.00—3rd " " " "

D. K. RAMEY & Co.'s mill, at Ramey, Pa. was lately burned, with 200,000 lath, the 3,000,000 feet of lumber at the mill being saved. Loss, $12,000; insurance, $7.500.

# ST. CATHARINES SAW WORKS!

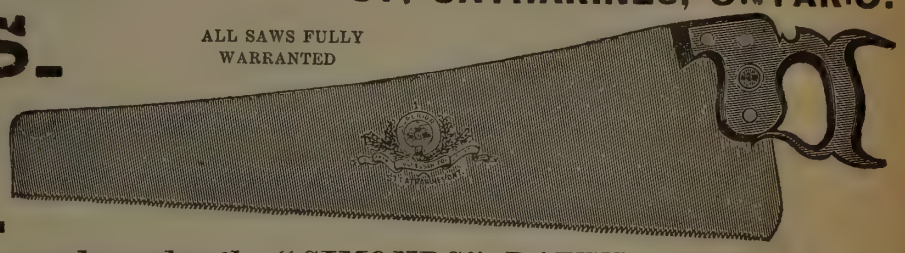
## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

## SAWS.

ST. CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

## "SIMONDS" SAWS.

*☞All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*

## F. E. DIXON & CO.

Manufacturers of
Patent Lap-Joint Star Rivet

## LEATHER BELTING

*70 KING ST. EAST, TORONTO.*

### To Mill Owners, Manufacturers & others requiring Leather Belting

Do not buy any Belting unless with DIXON'S PATENT LAP JOINT. It will last longer and do more service than any other. Please note the address, 70 KING ST. EAST, and send for Circulars and Latest Discounts.

A FULL LINE of all Sizes Single and Double Belting constantly in stock.

☞All ORDERS Filled same day as received.

## TORONTO

WAREROOMS

## 86 King Street East

*Factory and Warerooms :—2518, 2520 and 2522, Notre Dame Street.*

## MONTREAL, QUE.

## TIMBER LIMITS

WANTED

*On the North Shore of Lake Superior or Georgian Bay.*

Send particulars to

THOS. McCRAKEN,
Lumber and Commission Merchant,
4L13 2 Court St., Toronto.


### RECENT PATENTS.

The following list of patents, relating to the lumbering interests, granted June 16th, 1885, are specially reported by Franklin H. Hough 925 F. street N. W. Washington, D. C. :—

220,217.—Log loader—J. Campbell, Muskegon, Mich.

320,039.—Saw drag—J. W. Anderson, Boscobel, Wis.

320,086.—Saw drag—J. A. Owens, McDonald, Ga.

ISSUED JUNE 23.

320,591.—Log turner—D. J. Saltsman, Brewton, Ala.

320,681.—Saw, circular—W. J. Perkins, Grand Rapids, Michigan.

320,747.—Stave jointing machine—H. D. Barnes, New Haven, Conn.

320,574.—Wood grinder—E. J. Millard, Marrinette, Wisconsin.

### QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c, measured and culled to date :—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine.. | 732,705 | 434,342 | 193,184 |
| White Pine..... | 183,659 | 373,225 | 450,088 |
| Red Pine..... ..... | 23,694 | 25,713 | 12,853 |
| Oak ..... | 300,899 | 182,928 | 563,694 |
| Elm..... | 83,561 | 194,277 | 80,295 |
| Ash ..... | 24,359 | 82,158 | 36,998 |
| Basswood ..... | ..... | 205 | ..... |
| Butternut..... | 99 | 811 | 70 |
| Tamarac ..... .. | 56 | 1,851 | 36 |
| Birch & Maple..... | 128,016 | 177,651 | 251,730 |
| Masts & Bowsprits... | —pcs | —pcs | —pcs |
| Spars..... | — pcs | 32 pcs | — pcs |
| Std. Staves..... | 67.1.3.10 | 16.6.2.22 | 39.0.3.28 |
| W. I. Staves..... | 18.9.2.2 | 69,2.1.17 | 64,2.1.17 |
| Brl. Staves..... | 21.4.0.4 | 2,7.2.10 | 2.7.2.10 |

JAMES PATTON,
Quebec, June. 7. Supervisor of Cullers

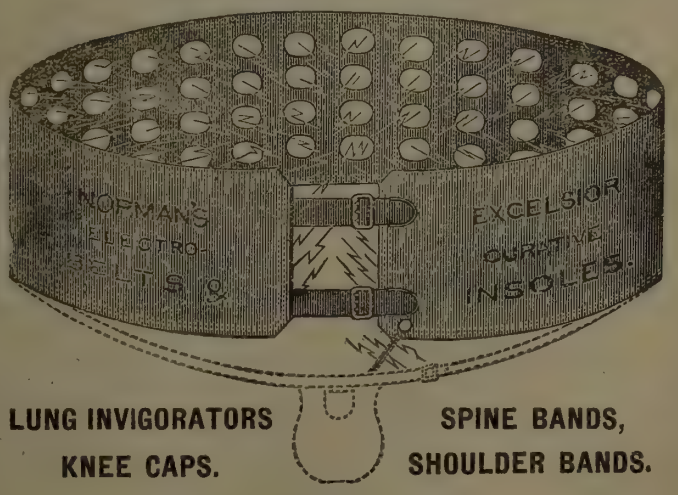
### ECONOMY IN RUNNING A BOILER.

About the most important element entering the economy of a boiler, says a contemporary, is the manner in which it is run. The matter of proper coal burning it vastly more difficult than the mere stopping, starting and oiling of an engine, and calls for some one of judgment and superior intelligence to do it properly. Many suppose that the one thing necessary is to heave the coal on to the grates, but this is a very great error. Some men appear to be born firemen, others can never learn to fire properly. And it is not always that the best men get their deserts, which is unfortunate and discouraging. We have in mind now a man who fired, unaided, a battery of thirteen boilers, and the peculiar thing about it was the fact that he never seemed to be doing anything at all. He did this for several years, and took it as a matter of course. Finally he said to the superintendent of the concern that he could burn half screenings if he would hire another man, a laborer, to wheel them into the fire room. The was done, and resulting in a large saving in the cost of fuel; but the treasurer of the establishment happened around one day and found the extra man at work and immediately raised a row about the expense ot the extra man, and insisted that they couldn't stand it. Very naturally the fireman couldn't stand that, and he put on his coat and went home. Not long afterward we visited the place and found four men were required to do the work. This was a clear case of waste.—*Boston Journal of Commerce.*

ON June 22rd Robert Elliot, recently returned from the Nile, with two others, were passing up Rideau street and stopped in front of a peanut store kept by an Italian named Pennett. They bought some nuts from the Italian, but had some words with him as to the price and commenced to wreck his stand, when the Italian struck Elliot over the head with a club, knocking him unconscious to the ground, Elliot was taken to his fathers's hotel on the By ward market, where he died this afternoon from the effects of the blows. Pennett has been arrested


## Norman's Electro-Curative Belt!

*4 QUEEN ST., EAST, TORONTO.*




This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

LUNG INVIGORATORS
KNEE CAPS.
SPINE BANDS,
SHOULDER BANDS.

## A. NORMAN, Medical Electrician

4 QUEEN STREET EAST, TORONTO.

*N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination.*

## TENDENCY OF BUSINESS.

In order to give any reliable indications of the future of business, we must first review the past, and carefully consider the present. The whole business world seems at this time to stand dazed, as it turns from the magnificient realizations of the twenty odd years just ended to the contemplation of the circumstances that now surround it and endeavors to penetrate the obscurity that lies in the immediate future.

The business of the country during the 25 years previous to 1861, was conducted by a class of men who entertained very different views of its objects and ends and the purposes of life to be attained by its prosecution, from those who are now engaged in the strife of commercial affairs.

They embarked in it and looked upon it as an honorable avocation intended to meet the wants of the communities in which they lived, and as an honest calling by which to maintain themselves and those dependent upon them, and if by economy, judicious care and persistent application, at the end of twenty-five or thirty years they were found to have accumulated an estate of fifty or one hundred thousand dollars, they were counted among the rich men of the and. A clear yearly saving of three or five thousand dollars was looked upon as a rapid accumulation of wealth.

The same modesty of expectation prevaded their employees. A chief clerk, on a salary of four or five hundred dollars a year, attended to his business from early morning until late in the right, and managed by careful economy to lay by a good share of his earnings until able to join his employer, or embark in a business of his own. So with those in minor positions, salaries ranging from on to three hundred dollars per year enabled them to not only supply all their wants, but to lay by for the contingencies of the rainy day of the future.

And they all worked until the work of the day was all done, which was the only circumstance that limited the hours of labor. Few unnecessary wants existed to stimulate unfair methods of business to meet their demands. At least, this was the general condition of affairs, and men retired from active business conscious that they had acquired their competency in an honorable way, and in the possession ol unimpaired morals and minds.

Some of this generation of business men are still living and still engaged in affairs, but most of them have departed, and the few who remain find themselves among a generation of merchants whose expectations in business and whose personal wants are widely different—being far more extensive and imperious than those that prevailed in their time.

The epoch we are now to consider, which was entered upon in 1861–62, and has been rapidly reaching its end in 1883-84, covering some 20 odd years, may be safely asserted to have been the most prosperous era of business that has ever fallen to the lot of a nation to enjoy, as far as history extends. There sprang up to meet it a new business Young America, who, seizing the reins of affairs, soon left the conservative fathers away back in the rear, straining their eyes to discover where and how the new departure in this wild race would end. But circumstances were all in their favor, and the headlong course went unterruptedly on. Vast fortunes were made in a year. Enterprises were undertaken involving millions, by men without a dollar, and millions were found to complete them; and when done millions more were made by stocking and selling them, and they were still found to pay. Great corporations were ashamed to declare dividends upon the actual cost of their schemes, but watered and watered and watered, to bring their profits down on their face to the comprehension of conservative men. All business was rushed in the same way. Manufacturers were unable to make goods as fast as they could be sold at their own price, and customers had to wait their turn to get them. The jobber could not find as many goods as he could find customers to take off his hands, and the consumption seemed to be without end. The more recklessly the dealer went in the more fortunately he seemed to come out, and steady going conservative minds found no place in the conduct of affairs. Young America had pushed them aside,and the "lightning express" of this era had the exclusive right of way on the road.

In mercantile matters, salaries had steadily increased until one or five, or even ten thousand dollars, was no extraordinary thing, and there were very few employees who did not receive from $500 to $1,000 per annum in the lower grades of mercantile work.

The present generation of business men have contracted habits of personal expense that would entirely consume the profit of a first-class business house forty years ago, and all their business education having been acquired during this period of inflation they are entirely unfitted to resume the ways of old. But the old ways are fast coming upon them—in fact, we may say, they are already here. The year 1884 was an anomaly in all its surroundings. Plenty absolutely burdened the land. There was no end to the supply of human food, or of anything else that contributed to meet the natural or acquired wants of mankind. Scores of millions of money were lying idle, for no one dared venture to move. Prices of food and all manufactures were never so low. Goods were offered in any quantity by the manufacturer and jobber at a mere margin, if indeed, with any profit at all, for of late the race has been to see who can do business with least possible percentage of gain. And all this time the expenses of business have remained as high as ever before. The exigency of the case seems to be an endeavor to continue a business which it costs eight or nine per cent. on all sales to run, at an average profit of six or eight per cent. and pay personal expenses besides.

Admitting that this cannot be done, the question arises what can. Can the expense of carrying on business be diminished? Can personal expenses be cut down? To answer these questions in the affirmative is to say that the present generation can at once go back to the ways of their fathers which they can not.

Experience is admitted to be both a dear and effectual teacher. Mankind, as a general statement learn little but what is burned into them by bitter experience. The gambler reforms when he is unable to borrow to stake on the pile; the speculator when he is so totally broken that he is unable to speculate more; and the business men of the country will learn economy and wisdom when their means fail them to continue on as heretofore. We have got to come down from the stilted past in some way or other—then why not at once do it like men?

We can see the large corporation of the country vainly attempting to pay dividends on treble the value of their plant, and the business men trying to increase their capital, while drawing out ten per cent. to meet its extravagant expenses, though their best endeavors can only make it earn five.

The business of the country is now in the hands of a generation who have been educated in the midst of inflation, and never knew what normal times were. Their expectations are wild and extravagant and their wants unnaturally large.

In this grave emergency there are but two ways of solving the problem. If we reduce the capital of all our undertakings to the actual value of the plant, and charge only such a tariff as will yield a fair dividend thereon—if we curtail our personal expenses in the same sensible manner, and reduce all taxation to the actual needs of the times, the grave question will be solved, and we can all go on living like honest and sensible men.

But will this wise course be taken? Let everyone answer for himself.

On the other hand,as indicated already in this paper, the question will solve itself. Let the "lightning express" go on until the fuel and steam are exhausted—until vast numbers of our business men reform their extravagance because they find tnemselves without the means to further compete in the race, and then—well, then, we will all have learned wisdom at the expense of dearly bought experience, and those who are left standing will move on.—*American Exchange.*

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THE schooner Maggie McRae loaded timber at the foot of 40th street for Kingston, Ontario, last week.

## LUMBER TRADE IN AMERICA.

The American correspondent of the *Timber Trades Journal* gives his views on the trade on this side of the Atlantic in a recent issue of that paper as follows:—

The enormous cut of logs during the long cold, and favorable winter just passed promises to furnish us with a cheaper supply of lumber than we have had for several years. There is a good deal of talk about better prices and more active demand, about combination and restriction, but the better opinion of well informed lumber dealers here and elsewhere is that the supply is too far in excess of the season's probable requirements to reasonably expect any improvement in prices. The furniture manufacturing establishments, the saw and planing mill establishments, and the establishments running band saws and similar wood-working machinery are all quite busy, turning out for the most part cheap stuff to fill large orders growing out of the activity in building throughout the country.

The low prices for lumber are not discouraging investments in timber territory. In fact, some of the oldest lumber manufacturers have for the past year been given a good deal of quiet and careful attention to new lumber territory, particularly in the south and west. Throughout the greater part of the north the forests are practically exhausted. The restricted supplies are in the hands mostly of small operators. The opportunities that are to be secured are to be secured are found only in remote sections just coming into notice and within reach of the market under the railroad improvements in progress. Among these lands attracting a good deal of attention are the cypress lands of the south. Two companies have been formed to purchase sections of cypress territory and to establish markets for the manufacture of wood for shingles, for cooperage purposes, for furniture and interior decoration and finishing purposes, and also to supply cypress when wanted for more extended uses such as shipbuilding, if possible. Cypress has wonderful lasting properties. It is cheap and beautiful, it is easily worked and makes good sashes, doors and blinds. The disappearance of oak is directing attention to cypress. Oak, which a few years ago was comparatively abundant, is now getting scarce, much of which of late years has gone into lake crafts, for cars, houses, and a variety of purposes which have in a comparatively short time exhausted the never very extensive supply. There are oak districts here and there throughout the States, but the supply is limited, and, considering the competition which other kinds of wood are offering, it is less important than it was before the recent lumber developments.

Throughout the Northwest nearly all the mills are working full time, and it is now evident that an immense supply of lumber will be piled up in view of the heavy distribution in sight. Navigation has been fully opened throughout the lake regions, and a great deal of building activity is reported. The reports from Stillwater, Minneapolis, Chippewa, La Crosse, Saginaw, Eau Claire, and other prominent lumber centres of the Northwest are of a favorable character, and show that the supply of lumber will be exceedingly large. Heavy sales are being made. This season's distribution will be much larger than last year. Railroad requirements are not heavy. The Minneapolis supply of sawed lumber for this season will be 100,000,000 feet. Taking the twelve surrounding centres the supply will reach 525,000,000, or a little over 100,000,000 in excess of the supply for last year. A full representation of builders and manufacturers from every Mississippi river manufacturing point was present at the Minneapolis meeting held recently. The agreement was entered into to advance prices from 50 cents to $1.50 per thousand feet according to grade. If this advance prove successful another advance will be attempted at the convention to be held at Eau Claire on the 21st inst. It is observable not only in the Northwest, but in Pennsylvania and along the Atlantic coast, that there is a disposition among lumber dealers and manufacturers to discontinue the cutting of prices, to advance prices, and to observe a higher code of ethics in business than has heretofore obtained recognition. It is certainly to be hoped that the lumber interests throughout the States will be successful in their efforts to obtain better prices, but they have serious difficulties to contend with. In some portions of Pennsylvania the banks have exhausted all their available resources in carrying their customers, and the customers are now at their wit's end. The competition of the lumber trade has been excessive. It remains to be seen whether the existing combination will be of much benefit. It is probable that during the present season a good deal of railroad will be built into new lumber regions in order to be independent of the streams which have heretofore been depended upon to haul logs to mills. Owners of southern timber are endeavoring to induce manufacturers to establish mills where they can dispose of their lumber supplies. A good deal of capital is being attracted in that direction. The wholesale dealers in our large cities are complaining, and with good cause, of the custom of large contractors to deal with first hands. Builders of 25 or 100 houses find it cheaper to buy at wholesale in the South and Northwest than to depend upon local wholesalers.

At Chicago stocks of lumber and timber on hand April 1st were 438,000,000 feet, against 370,000,000 feet April 1st 1884. The receipts since January 1st to May 7th were only 100,000,000 feet, against 208,000,000 feet for the same time last year; a decrease of 108,000,000 feet. The supplies of shingles, lath, pickets, and cedar posts aggregate about the same.

The hemlock lumber interests are in session at the present time at Williamsport, and expect to succeed in perfecting an organization which will allow moderate margins. The Southern lumber manufacturers are complaining of low prices, but crowd northern markets with supplies. Several new mills have recently been contracted for, and the woodworking machinery establishments are nearly all full of work, but, as in all branches of manufacturing, the iron and steel markets are dull. Railroad building is far below last year's. Prices of everything have receded to limits which forbid further reduction. The feeling in manufacturing and financial circles is that the bottom has been reached. The railroad companies have been quarreling over traffic all the spring, and have finally patched up their difficulties to result in hostilities again.

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## TRIALS OF A LUMBER FIRM.

In the Port Arthur *Herald* of a recent date there is an account of the difficulties encountered by the Duluth Lumber firm of Glass & McEwen in their attempt to dispose of the cargo of the schooner Erin. The Erin is a Canadian boat and was loaded by Glass & McEwen, at Heron Bay last fall, with lumber for the Port Arthur firm of Graham, Horne & Co. In attempting to cross the lake she ran aground on Keweenaw point, staving several holes in her bottom. But she was afterwards pulled off and taken to Lac la Belle where the holes were patched and she laid up for the winter. This spring her cargo was sold for delivery to Ashland parties, but the Erin being a Canadian craft the sale had to be abandoned, as "no foreign" bottoms are allowed to clear direct from one American port to another. Some other disposal of the cargo had to be made and this time it was sold to a Winnipeg firm to be delivered at Fort William for shipment by rail. The American wrecking tug, Kate Williams, was hired to tow the Erin over. But on arriving at Port Arthur the tug captain claimed that the water between there and Fort William was so shallow as to endanger the patches on the Erin's side and he refused to proceed further unless guaranteed that in case she should spring aleak she would be repaired and made as good as new at the expense of the consignees. It was suspected that under such circumstances the Erin would hardly fail to run aground and the proposition was refused. An attempt was then made to have a Canadian tug tow the Erin up to the fort, but the Captain of the Williams refused to consent unless the same guarantee was made, and so that project was also abandoned. As a final solution of the difficulty the lumber which had had so much difficulty in getting to market was dumped off on Mark's wharf at Port Arthur where it lies, still several miles from its destination.

# Chips.

HEMLOCH bark is worth $5 a cord at Ludington, Mich.

THE Canton, Me., pulp mill consumes 1,500 cords of pulp a month.

THE Flat river Michigan, drive, will this year contain 60,000,000 feet of logs against 200,000,000 feet last year.

THE Eagle mill (Runbun & Co.), Prince Edward County, resumed operations on June 17th after being idle a week on account of a broken wheel.

LUMBER is being carried from Duncan City, Mich., to Tonawanda, N. Y., according to a Cheboygan paper, at $1 a thousand. The distance is about 600 miles.

THE Hudson Lumber Company, of Hudson, Wis., recently purchased 100,000 feet of logs, of Donavan Brothers, at $7 a thousand, delivered at Hudson.

MR. EATON'S shingle mill, in Ottawa, was destroyed by fire early on June 18th. It was the work of an incendiary. The loss is about $1,500.

THERE are now but one saw mill and five shingle mills within a radius of five miles of Edmore, Mich., whereas five years ago there were five times that number.

THE Minnesota & Ontario Lumber Company has about 20,000,000 feet of logs at Fort Francis, Lake-of-the-Woods, Ont., which P. Nester has contracted to boom for the company's mill at Rat Portage. A raft of 7,000,000 has already been taken out.

A FRENCH technical journal states that one-eighth of the entire German railway system is laid with metallic ties, and one-half of the new lines in that empire are supplied with them. In the future metallic ties will be used in Belgium. Thus, in Europe, iron is taking the place of wood in that important part of railroad construction that has always consumed a vast amount of forest growth.

THE Grand Rapids Furniture Association has 61 members; a capital aggregating $8,525,000, and employs 5,728 men. The annual sales are nearly $7,000,000, and 25,000,000 feet of hardwood lumber are cut up annually.

## LOGGERS IN THE REDWOOD REGION.

Of the men engaged in logging it may be said that they are strong and hardy, but not so inured to hardship as their brothers of the Northern pineries. Here the work is done in summer time, beneath fair skies and in a bracing and salubrious atmosphere. The strong sea breeze penetrates the deepest forests and lowers the temperature, so that it is seldom uncomfortable, even at midday; while at night two or more blankets are alway required. The life they lead affords but little variety. They are early risers, hence retire early, as there is nothing to keep them up but the recreation of a game of cards or the telling of threadbare stories. But on Sundays the majority go to the mill town and have a "good time," as they call it, which too often means a drunken orgie.

Many of them have been seafaring men, and retain the habits of their former calling, one of which is that their wages are perpetually mortgaged to some rum seller. Work in the redwoods is full of risk, and the accident insurance companies have agents who visit all logging camps to solicit patronage. Statistics show that the insurance companies are away behind on the redwoods, the annual losses paid being three or four times in excess of the premiums received.

But, although many of the woodsmen are improvident, there are instances where, by close economy and union of purpose, men who began life as "swampers" have grown to be mill owners. The opportunities for "making a stake" by speculation in timber lands have been numerous, the pre-emption and homestead laws of the United States having been liberally taken advantage of by woodsmen. Quarter-sections of land, costing the pre-emptor $200, have been sold for $3,000, $4,000, or $5,000, when available for or near a mill site.—*Mendicino Cor. New Orleans Times Democrat.*

## "POET-TREE."

Oak, Caroline! fir yew I pine;
O willow, will you not be mine?
Thy hazel eyes, thy tulip lips,
Thy ways, all larch, have turned my head.
All linden shadows by the gate,
I cypress on my heart and wait;
Then gum! beech cherished, Caroline,
We'll fly for elms of bliss divine,
O, spruce young man! I cedar plan—
Catalpa's money if you can,
You re sumach ash, but not my heart;
You're evergreen so now depart;
You'd like to poplar—that I see—
Here's pa! you'll see hemlock the gate;
He maple lightly say "tis late!"
Mocust that lover, while he flew
From elm before that parents shoe;
He little thought a dogwood bite
Would make him balsam much that night,
Hawthorney path he travelled o'er.
And he was sick and sycamore.


### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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17

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

JUNE 23.—Trade has again been completely paralyzed by the strike of the masons' laborers Not the sound of a trowel to be heard, and retailers have their men and horses nearly idle. How long this state of things is to continue it is difficult to say. The action taken by the masons themselves in refusing to take material from any men not belonging to the union has exasperated the master builders to no small extent, and one thing is certain—many contracts that were coming out have been cancelled, and should the men gain their point, sufficient time will have been lost before doing so, to absorb all the extra wages they want. At the close of the building season the lumber business is so cut up by excessive competition that this additional stroke will be felt to the close of the season Foronto with its suburbs is said to contain 100,000 inhabitants all told, and taking into account the commission men we have at the present time a lumber firm for every 1,250 of our population; this will give you a fair idea of the amount of competition now existing in the lumber trade. Men who scarcely know a mill cull from a clean plank are competing for the trade with men who have spent a lifetime in mastering all the details of this hazardous business, and one in which 99 out of every hundred which engage in it fail to succeed.

It is useless to attempt to quote you prices as trade is at present conducted, each man seems to have one of his own, and nothing certain except a sure proportion of bad debts.

Over our docks up to the present time there has passed 9,427,000 feet, most of which went to Oswego. Of this amount the firm of Christie, Kerr & Co. have shipped 5,340,000; Wm. Hall & Son, for various parties, 2,833,000; Donogh & Oliver, 2,958,000, and other small lots 187,000. During the next month shipments will be light until the new cut is fit to move. Most of the good lumber passing over our docks has been purchased by Messrs. Rathbun & Son, of Deseronto, and is handled by their agents, Hall & Son. I hope by the time my next letter becomes due that I may be able to give you a brighter account of the state of the retail trade here.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| ound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

## MONTREAL.

*From Our Own Correspondent.*

JUNE 23.—Trade for the past two weeks has been very dull and the weather much against business. The spring trade is over, and there has also been a lull in the building demand. Altogether we cannot give much of a favorable report. Arrivals by the canal have been fair and stocks generally are full and well assorted. In Quebec the market has been pretty active for white pine and a good deal of hardwood to arrive has been sold. Prices here are about steady as under ex yard, but we quote lath a little higher:—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 22 00@24 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Base, " " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@25 00 |
| Hard Maple, ₱ M | 25 00@35 00 |
| Lath, ₱ M | 1 60@ 0 00 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

### SHIPPING.

There is nothing doing in the way of shipping and shippers are now only filling old engagements. The only vessel chartered since our last report was the steamship Minethyst, for Liverpool, at 50s. There has only been 23 vessels chartered for South America this season, including the four whose clearances are noted below, no new engagements transpiring. The following are clearances at the Custom House since our last report: SS Milanese, for Liverpool, 18,658 pcs. deals and 434 ends; per SS Dracona, for London, 4,543 deals; per SS Lake Manitoba, for Liverpool, 2,800 deals; per SS Grecian, for Glasgow, 15,347 deals; per SS Barden Yonnie, for Glasgow, 5,460 deals; per SS Jeranis, for Liverpool, 16,475 pcs. deals, 760 deal ends and 22,817 boards; per BK Julie, for Buenos Ayres, 14,827 pcs. lumber and 37,681 pickets; per SS Mississippi, for Liverpool, 1,269 boards and 13,332 deals; per SS Batavia, for Glasgow,10,000 feet lumber; per SS Dominion, for Britol, 2,819 deals and 1,689 boards; per SS Devon, for Bristol, 8,675 deals; per ship Gloaming, for Buenos Ayres, 80,355 pcs. lumber; per BK Accident, for Grimsby, f.o., 6,130 deals and 478 deal ends; per BK Sokoto, for Buenos Ayres, 42,710 pcs. pine lumber and 4,783 ditto on deck; per BK James Law, for Buenos Ayres, 57,605 pcs. pine lumber and 9,470 boards and 1,101 deals.

### CORDWOOD.

The market is quiet with almost no demand and stocks heavy. Prices for good long wood ex cartage at the whaves are as follows:

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## CHICAGO.

### THE CARGO MARKET.

The *Northwestern Lumberman* of June 20th says:—The port list for the week ending Wednesday showed 207 arrivals, a number that compares well with the total of the corresponding week of last year. Since the beginning of June steadiness of arrivals has been a marked of the lake receipts. No matter which way the wind has blown, from 175 to a little over 200 cargoes have put in an appearance each week.

The feeling this week is firmer than at any time since the opening of the season. This is particularly a fact as respects piece stuff. Several good cargoes, that ran mostly white pine, have been sold mostly at $8.75 a thousand. Desirable loads are decidedly nimble at $8.50, and we hear no more of shadings below that figure. The fact is that little piece stuff is coming to market, the most of it being sold at the mills. An opinion begins to prevail that dimension lumber is becoming short in supply in the country at large.

While the green piece stuff is firmer, and an advance of 25 cents a thousand has in several cases been attained, dry dimension is weaker than it was at the spring opening. This can be accounted for from the fact that dry piece stuff in the yards is yet weak, and selling lower than it can be bought for on the market. So we see that we have a criss-cross of conditions—a weakness in dry lumber, and a firming up of green stuff.

No. 2 dry stock is coming in less volume than a short time ago. Commission men have been cautioned moderation in shipping it. Too large a proportion had been coming since the opening of navigation. The greater share of that piled at the mills has been marketed, however. The most now being sold goes at $10 to $10.50 a thousand. Culls are a drug, and are off in price. Lumber of this class, that sold through May at $6.50 a thousand, now sells at $5.50.

A sale of stock from No. 1 logs is reported this week at $15 a thousand, which was straight log run. This price indicates that good lumber is still well esteemed.

More than the usual amount of hemlock plank is being required for street improvement this year. It is cut two inches thick, and sells for $7.25 to $7.50 a thousand.

Shingles are weaker than they were two weeks ago. Arrivals are liberal. Standards have gone off 5 cents on a thousand, ranging now at $1.85 to $1.95 a thousand. Extras are selling from $2.12½ to $2.20, and a sale of Boyden & Ackeley shingles at $1.95 is noted.

Lath is worth $1.20 green, and $1.50 dry.

Lake freights are weak on a basis of $1, by steam, to dock from Muskegon, with probable occasional shadings on this figure.

| | |
|---|---|
| Dimension, short, green | $ 8 50@ 8 75 |
| No. 2 boards and strips | 9 50@11 00 |
| Medium stock | 13 00@14 00 |
| No. 1 stock | 15 00@18 00 |
| Shingles, standard | 1 85@ 2 00 |
| Shingles, extra | 2 10@ 2 20 |
| Cedar | 1 60@ 1 75 |
| Lath | 1 20@ 1 50 |

Lake freight rates are quotable as follows:

| | |
|---|---|
| From Grand Haven, dry | $ 1 12½ |
| From Muskegon, by steam | 1 00 @1 12½ |
| White Lake, dry | 1 25 @1 37½ |
| Ludington | 1 37½ |
| Manistee | 1 37½@1 50 |
| Frankfort | 1 50 |
| Menominee | 1 50 |
| Chebovgan, Duncan City, St. Ignace | 1 50 @1 62½ |
| Alpena | 1 62½ |
| Manistique | 1 62½ |

### AT THE YARDS.

The volume of shipment still lags behind the the June business of last year. The dealers insist that trade is exceedingly dull, so far as car load shipments are concerned. The redeeming feature of mid-summer dullness is only found in the prevailing good demand for lumber on local building account. Reports are almost uniform in this particular. In fact, the amount of lumber called for by the contractors and carpenters in the city and suburbs—especially the latter—is something of a surprise to the men who cater to this class of trade. After the spring opening, for a time, the local demand, though good, did not exhibit that vigor and urgency that was wanted, and men began to predict that that the fairly active spurt of spring business would ease off toward summer, so that the season, as a whole, would not be as favorable as that of last year. Then there was a stonequarry strike at Lemont and Joliet, and the lateness of the season delayed the ripening of the new crop of brick. Altogether, the outlook was considered less promising than it was at the beginning of last season. But as the time advances it it is seen that, though there are numerous dwellings and some business places without tenants, long lists of building permits are daily taken out, while the volume of demand for lumber is well maintained. Yards that do a local business almost exclusively have their teams busy delivering lumber, while the shippers are lamenting the meagreness of their mail orders.

In the present stagnant condition of trade not much can be said about prices. Dealers are getting as much as they can for lumber, and are selling for what they can get. Dimension should ber firmer, but it is difficult to determine that such is the case. Comparing schedules for bids this week, we find that two, amounting to over $1,000, differed only 35 cents. This is near enough for the most exacting. It can be said, too, that the prices made in each instance did not materially differ from the printed list. One schedule was from a manufacturer and another from an exclusively jobber. And yet a manufacturer has this week stated that prices are apparently weakening all the time; and one instance is reported in which, under the stress of competition, a house was induced to cut the prices of another house $2 a thousand on some items of dimension and other stuff. But as a general thing there is a firmer feeling regarding dimension, as a result of a stiffer cargo market, and short stocks, coupled with scarcity, outside of this market.

Receipts of lumber, shingles, etc., from Jan. 1st to June 18th as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 58,121,000 | 24,389,000 |
| 1884 | 61,580,000 | 30,662,000 |

FROM JANUARY JAN. 1, 1885, TO JUNE 18, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 420,920,000 | 145,871,000 |
| 1884 | 584,911,000 | 296,495,000 |
| Decrease | 163,991,000 | 150,324,000 |

LAKE RECEIPTS FROM JAN. 1 TO JUNE 18.

| | |
|---|---|
| Lumber | 317,792,000 |
| Shingles | 122,550,000 |
| Lath | 10,000 |
| Wood, cords | 9,727 |
| Posts | 1,131,970 |
| Railroad ties | 559,636 |
| Slabs, cords | 7,784 |
| Bark, cords | 1,344 |
| Poles | 14,734 |
| Spiles | 400 |

## BOSTON.

The *Journal of Commerce* of June 20th says: There is a moderate demand for supplies, with little change to note. Spruce and hemlock are firm and in good request. Southern pine is having a moderate call. Western pine is quiet. Hardwoods are moving moderately, and about the same as previously reported.

### CANADA PINE.

| | |
|---|---|
| selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## OSWEGO, N.Y.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in. | 30 00@35 00 |
| " 1¼ in. | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft. | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| Cedar | 2 75@ 3 20 |
| Lath, No 1 | 1 75@ 1 90 |
| No 2 | 1 00@ 1 25 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₱ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@25 00 |
| Pine, common box | 13 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in. | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 18@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@30 00 |
| Pine, 12-in. boards, 16 ft. | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft. | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@16 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 10@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 00@120 00 |
| Black walnut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 00@ 4 00 |
| " clear, " | 0 00@ 3 50 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 0 00@ 2 00 |
| Lath, hemlock, ₱ M | 0 00@ 2 25 |
| Lath, spruce, " | 0 00@ 2 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LONDON.

The *Timber Trades Journal* of June 13th says:—Prices at Wednesday's sale were not a whit better than those we have been recording lately. There was plenty of bidding, especially for the spruce lots submitted, but unfortunately the competition ended where it ought to have begun, and the values realized show no advance on past sales. Floorings were also freely offered for, but only at prices that left little or nothing on the first cost, and in several instances at figures much below what they could be imported at. The few lots of Memel ex Coleridge sold about as well as anything. The political change had evidently not made itself felt on the wood trade, judging by the comparative indifference displayed by many of the big

dealers to secure the bargains going, and probably many of them are willing to wait, in the hopes of acquiring stock at even lower values than are now ruling. It is a very open question whether the market prices will revive or experience a still further subsidence. On the other hand we have the large stock in hand and the dull state of trade, whilst on the other there is the known shortage of deals, &c., on the Swedish as well as the Canadian side, to turn the scale in favor of an advance; but the want of confidence in a short supply predominates sufficiently to check speculation, and things go on at a dead level that is unsatisfactory to everybody.

The rapidity with which news is now transmitted doubtless assimilates the markets of the world, and hardly anyone dare reckon on a continuation of any shortage in the supply, as probably, while he is turning over in his mind how to take advantage of it, the wires have apprised the producers of the want, and the supply to satisfy it is already on its way.

Corn is as cheap as it is likely to be for many a year to come—we have many of the lands going out of cultivation in consequence of its unremunerative character—but the same uncertainty attaches itself to any investment in this direction that surrounds the timber trade. The source of all the stagnation is to be found in the alarming over-production. The whole world is apparently directing its attention towards supplying the markets of Great Britain, and that the strain can have been supported for such a length of time speaks volumes for the solidity of the country and its vast financial resources.

There are as many houses as can find inhabitants, and the building trade has been stimulated by the cheapening of railway rates and other modes of conveyance, which, together with the abundance of money in the country with very few other channels for its distribution, made the consumption of timber while the fever lasted equal to keeping pace with the supply, but now that building is overdone the supply goes on all the same, with, of course, a corresponding depression in prices.

That an enormous trade in building is doing, and will continue to be done, in this country, of a legitimate kind, there cannot be the slightest doubt about; but it has its limits, and when that point is reached the reaction is felt on wood values. It is something of the kind now that is operating so hardly against the timber market.

Things at Thursday's sale were rather brisker than the previous day. The attendance was hardly as numerous, but the bidding, though very feeble at the commencement, rallied considerable as the sale proceeded. Spruce, though still low, was in slightly better request, and prices for the Quebec and other parcels submitted may be said to have advanced on the prices of the day before fully 5s. a standard.

The Michigan pine ex Scotland, 1st quality 12 to 14 in., sold well at £26 10s. to £27 5s.; the same with the 2nd at £18 15s. to £19. These goods are nothing like equal to Quebec of similar quality and dimensions, and were not dry, being imported sometime last October, and if 1884 spring cutting it was as much as they were worth. The lower quality pine lots fetched their full value at the prices recorded. The Odessa wainscot and seasoned oak was cheap at the prices realized; but, though stocks are not overdone, we understand that shipments are expected to arrive shortly that will give a different complexion to the dock stocks. Oak generally was not very much inquired for; there were plenty of buyers for the Danzig and Stettin straight oak, but a great deal of it was only smell stuff.

## GLASGOW.

The *Timber Trades Journal* of June 13th says: During the past week the first imports of Canadian deals for the season have been received here, several steamers having arrived with small parcels, consisting of pine deals chiefly, and a lot of ash 3 in. deals and 1 in. boards.

The Canadian deals imported here are now brought mostly per steamer as filling up, this market being a good general depot for sawn stuff. No sailing ship from Quebec has yet appeared; the timber carriers generally begin to arrive at Greenock about three weeks later than this.

There has not yet been a public sale of the new deals just landed, so that nothing can be said meantime as to how they have been received. This season opens with a favorable change for the storage of deals, Yorkhill Yard being set apart for deals and the log trade accommodated at the east end of Queen's Dock, which is a good arrangement, as more room was required, and the ground could not be so well utilized when logs were stored promiscuously in the same yard with deals On the other hand, the berthing room at Yorkhill Wharf has been curtailed, owing to the extension of the cattle trade there.

The only import at Greenock to note for the week is one cargo pitch pine. The total tonnage employed in conveyance of pitch pine to Clyde this year to date is 11,797 tons, against 18,872 tons for corresponding period 1884.

The public sale, particulars of which are noted below, was fairly attended, but only a moderate amount of business was done.

VUCTION SALE.

On 4th inst., at Greenock, Messrs. Singleton, Euon & Co., brokers:—

| | | |
|---|---|---|
| Quebec waney boardwood— | | Per c. ft |
| 45 & 48 cub. ft. avg. per log | | 1s. 11d. & 1s. 9½d. |
| Quebec yellow pine— | | |
| 40 cub. ft. avg. per log | | 1s. 1½d. |
| 26 " | | 1s. |
| Quebec red pine— | | |
| 38 cub. feet avg. per log | | 1s. 0½d. |
| Quebec oak— | | |
| 1 log msg. 51 c. ft. | | 2s. 4½d. |
| " 66 " | | 2s. 4d. |
| 5 " 334 " | | 1s. 7d. |
| Quebec birch— | | |
| 4 logs msg. 72 " | | 1s. 1d. |
| Hewn pitch pine— | | |
| 1 log msg. 53 c. ft. | | 1s. 1½d. |
| Quebec 3rd yellow pine deals— | | |
| 12 ft. | 7/9×3 | 11¾d. |
| Quebec 4th yellow pine deals— | | |
| 13 ft. | 12/23×3 | 1s. 0½d. |
| 12 " | 11/15×3 | 11½d. |
| 13 " | 11×3 | 9½d. |
| 9 to 13 " | 11/22×3 | 9d. to 10½d. |
| Miramichi spruce deals— | | |
| 18 to 22 ft. | 7×3 | 8¼d. |
| 10 " 14 " | 7×3 | 8½d. |
| Miramichi pine deals— | | |
| 10 to 22 ft. | 14/18×3 | 8d. |
| 10 to 22 " | 11/13×3 | 7¾d, & 8d. |
| 9 to 22 " | 8/10×3 | 7½d. & 8d. |
| White dram battens— | | Per lin. ft. |
| 7 to 23 ft. | 4×2 | 0½d. |
| 8 to 23 " | 6×2 | 0¾d. |
| 11 to 24 " | 6½×2½ | 0 15-16d. |
| 10 to 26 " | 7×2½ | 1 1-16d. |
| Red dram battens— | | |
| 6 to 23 ft. | 6×2 | 0¾d. |
| 18 to 22 " | 6½×2½ | 1 7-16d. |
| 13 to 22 " | 7×2½ | 1 9-16d. |
| 8 to 22 " | 7×3 | 2d. |
| Red pine deals— | | Per c, ft. |
| 6 to 22 ft. | 9×3 | 1s. 2d. |
| Pitch pine deals— | | |
| 3 & 4 in. | | 9d. to 10½d. |

## TYNE.

The *Timber Trades Journal* of June 13th says: The arrivals of the past seven days have been thirteen cargoes or parts of cargoes principally from the Baltic. Amongst them are three regular steamers from Christiana and Gothenburg, with cargoes of wood pulp, battens, boards, and pitwood. The various discharging places are all now fairly occupied, and the docks present a more lively appearance. So far the great bulk of the arrivals appear to be going into stock, there being but a small and feeble demand for wood goods one the whole. A few contracts are being rapidly pushed forward, and during the last few days some rather large contracts have been signed, but their number and amount are not sufficient to make much active demand. House building in one or two of the suburbs still is very brisk, but in the district generally there is not a great deal doing, and house property is at a discount. The ship building trade shows no signs of a revival, many of the yards remaining closed apparently for an indefinite period, and most of them working short time with a very much reduced staff. There are a few exceptions, but it is principally where Government contracts for war vessels are in progress.

Use the great specific for "cold in head" and catarrh—Dr. Sage's Catarrh Remedy

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CHAS. M. WHITLAW, Manager.
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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,
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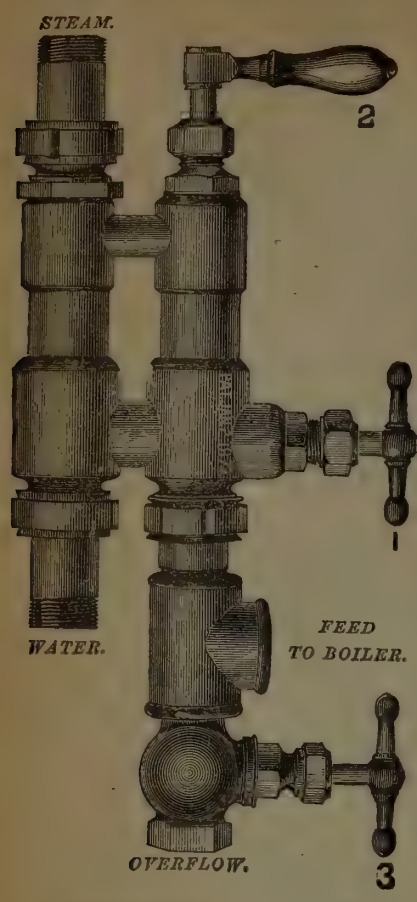


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**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

## Over 70,000 Now in Use.

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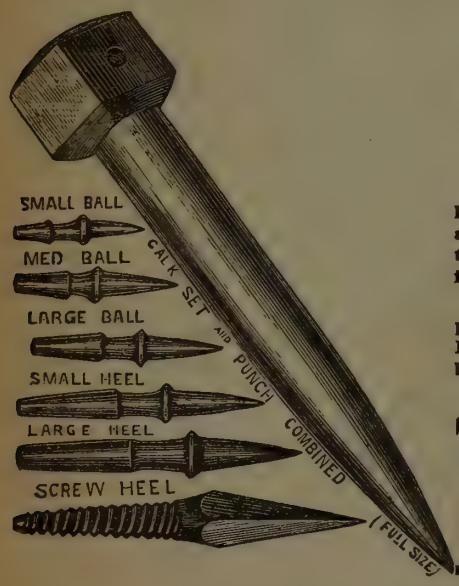


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# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

*ST. JOHN, N.B.*

**Samples and Price Lists sent by mail on application.** L2

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KNIGHT'S PATENT "EXCELLSIOR"

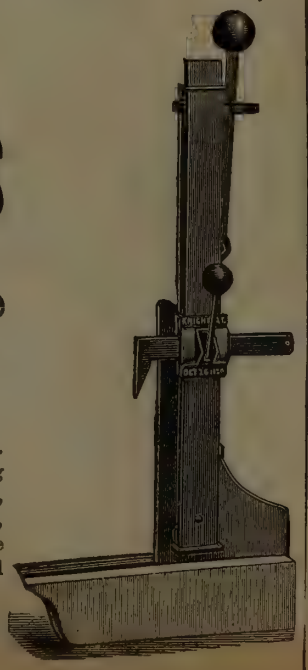
# SAW MILL DOGS

## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

Manufactured by HUGH GIBSON, CHATHAM.

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*USE ONLY*

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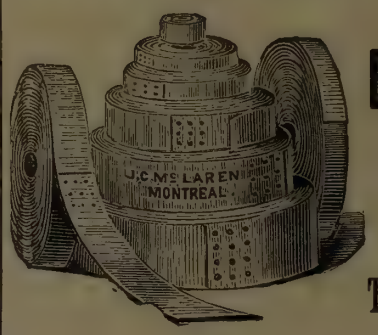
# OAK TANNED BELTING

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## Best Belt ever offered

*IN CANADA*

*EVERY BELT GUARANTEED*

**The Best Mills in the Country use it.**

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

For Discounts and Terms, Address

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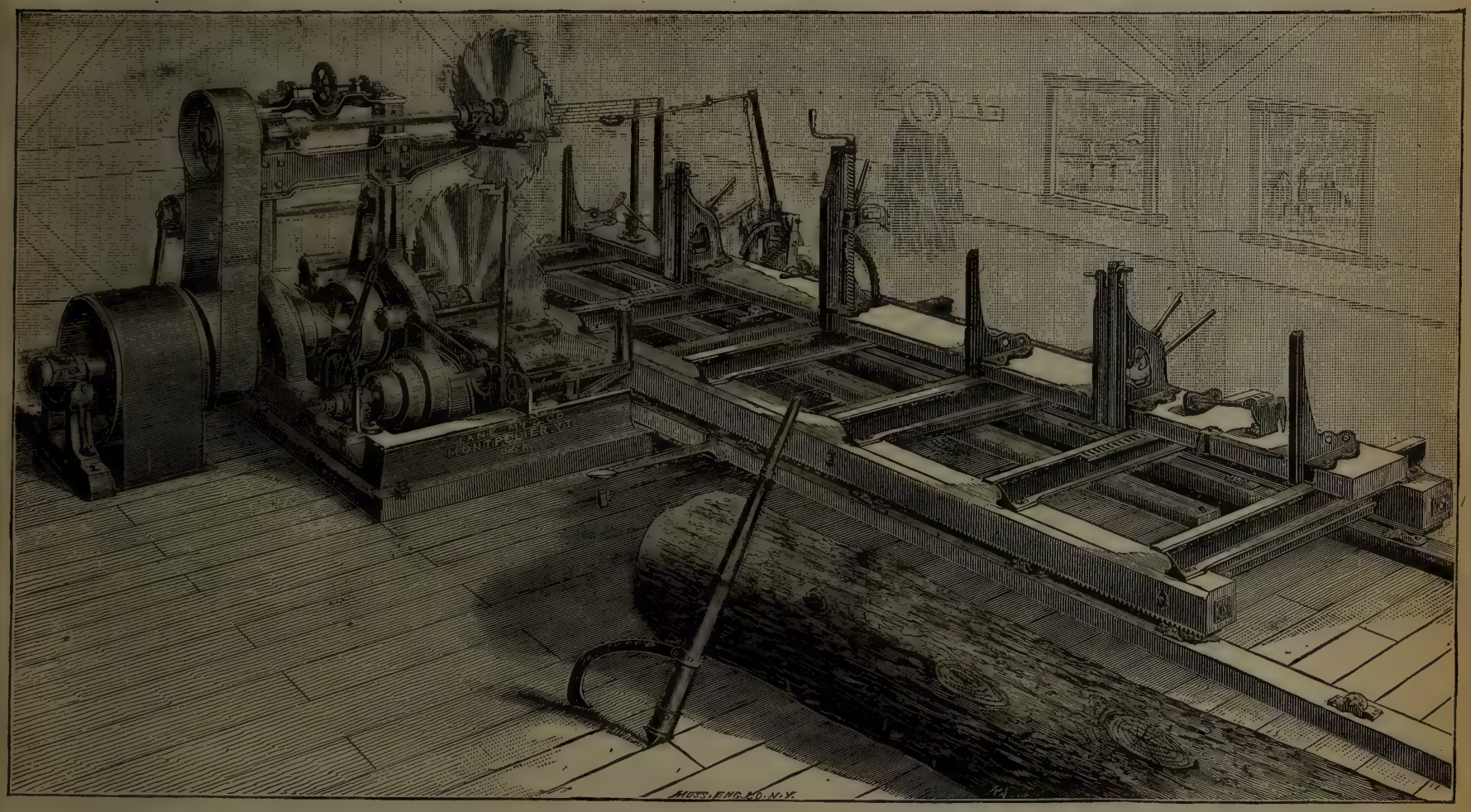
# CIRCULAR - SAW - MILLS



Circular Saw Mills,
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## Peterborough, - Ontario

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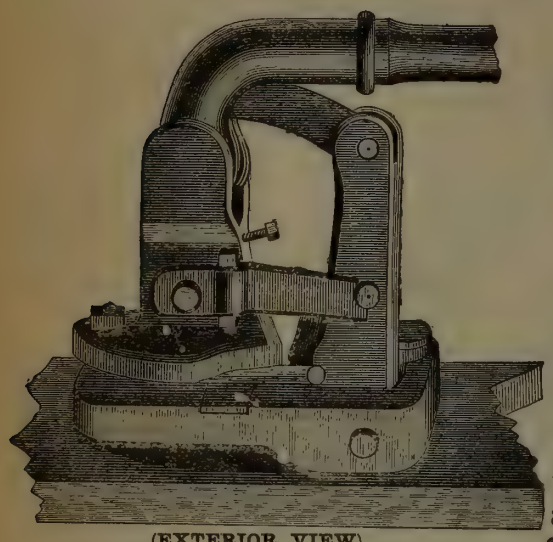

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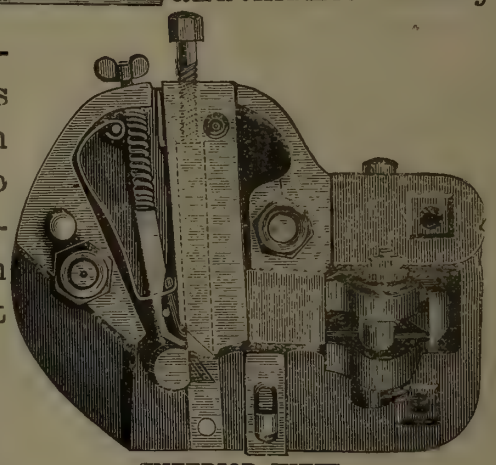
### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

*TRY IT!*

**Price $100, Cash 30 days.**



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## Covel's Improved Saw Bench

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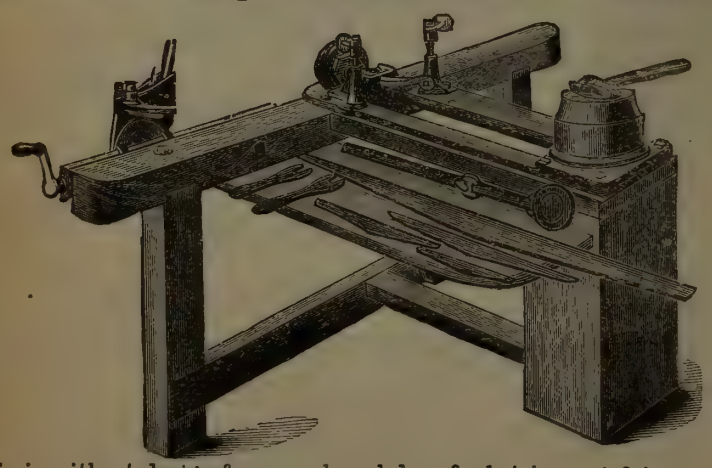
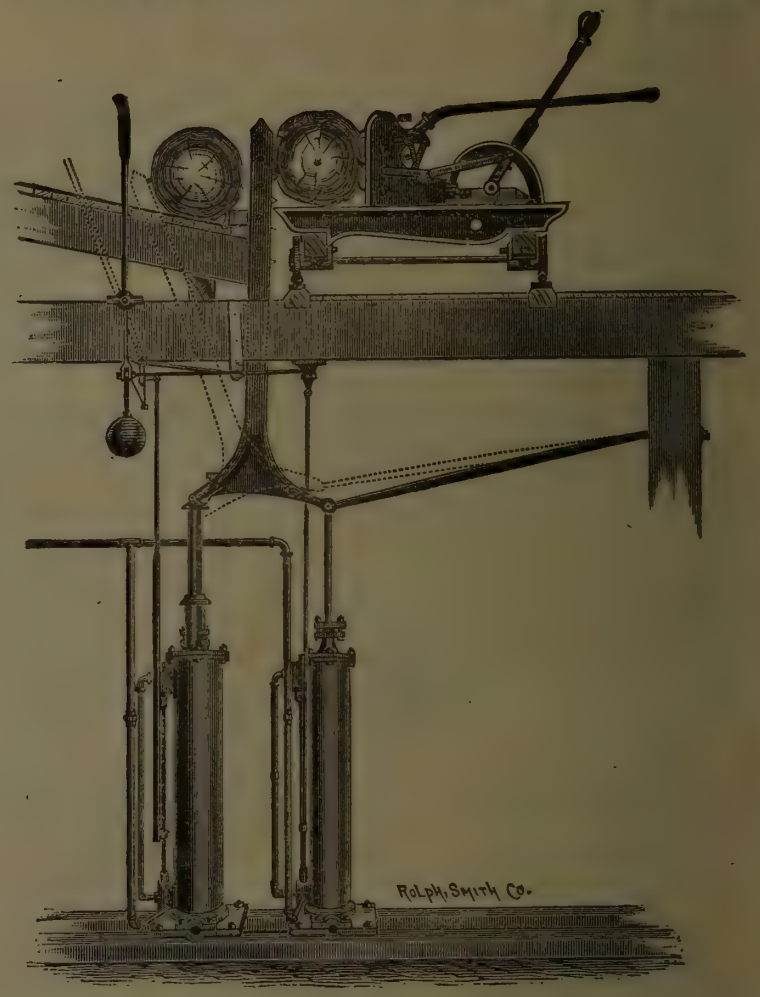


*Price $50, Cash 30 Days.*

This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition for the File Room.

### THE KALAMAZOO

## STEAM "NIGGER"




It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springimg Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

**We Guarantee each Machine in every Particular.**

# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERD STEAM MILL or FACTORY.***

**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

***IF YOU WANT***

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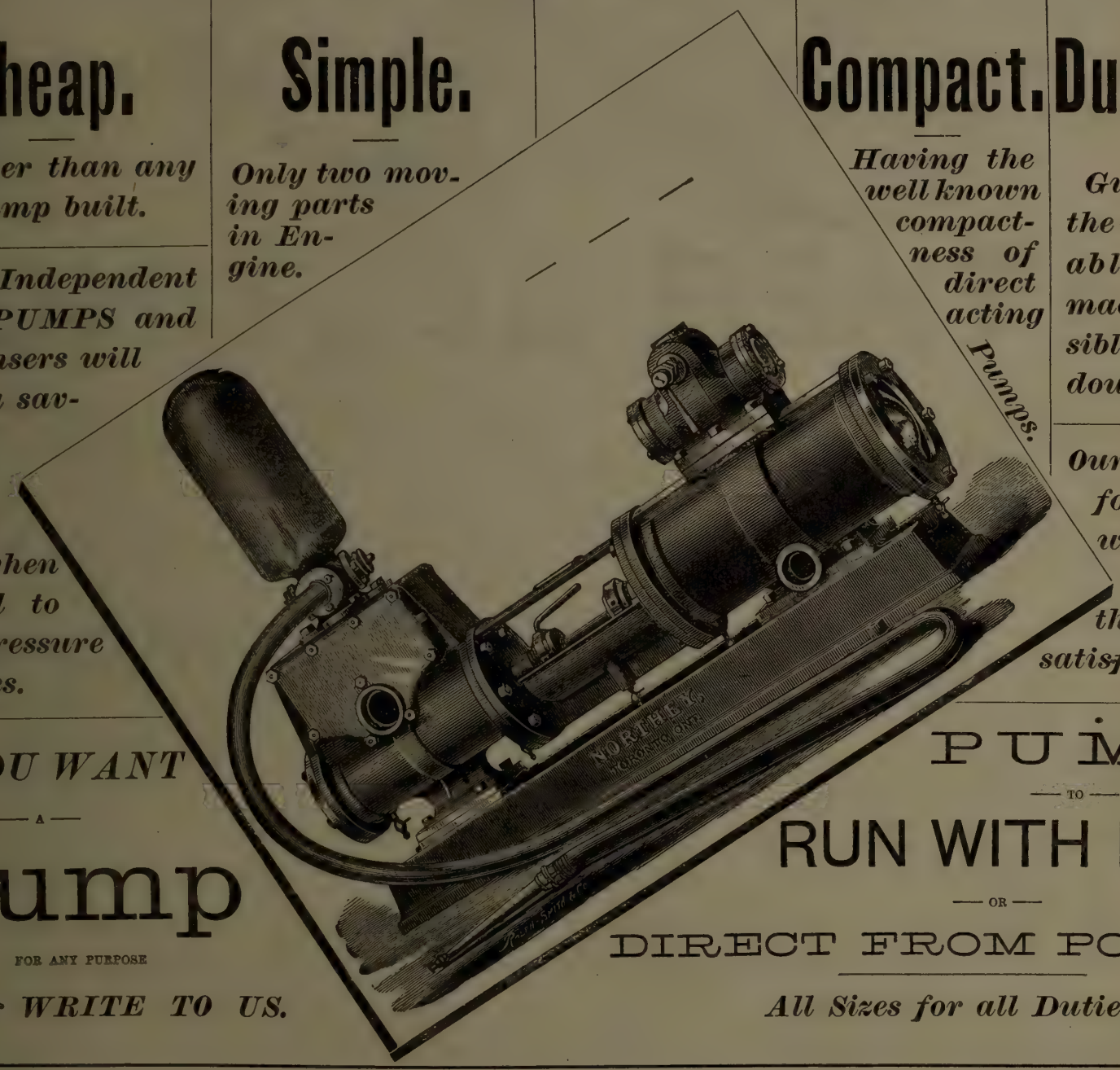
FOR ANY PURPOSE

***WRITE TO US.***

**Simple.**

***Only two moving parts in Engine.***




**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

PUMPS

— TO —

RUN WITH BELT

— OR —

DIRECT FROM POWER

***All Sizes for all Duties.***

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

## SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

## NORTHEY & COMPANY,

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# HARRIS, HEENAN & Co.

124 AND 126 QUEEN STREET, - - MONTREAL.

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

TESTIMONIAL.

IRA GOULD & SONS, CITY MILLS, Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

TESTIMONIAL.

PECK, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT.
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

*The Best, therefore the Cheapest, Belt in the market.*
*Replaces, when used, all others.*
*More Pliable and Durable, especially at the splices.*
*Stretches but little, always retains it original width.*
*Superior for Cross or Double Belts.*
*Runs straight and true, does not start at the laps.*
*Single equals medium double.*

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

# Why do You Suffer when you May be Cured by Electricity?

Without loss of time or great expense. Ten or Twenty Dollars spent in ELECTRIC BELTS will do you more good than a hundred expended any other way.

CRYING BABIES.—Babies cry because they suffer. Their little gums are inflamed, and their bodies are more or less feverish. If you will tie around their necks one of NORMAN'S ELECTRIC TEETHING NECKLACES you will see a wonderful change for the better, their sufferings cease, and their general health improves. Ask for Norman's, and take no other, and you will be pleased. Price 50c.

FEVER AND AGUE.—Do not throw away money on worthless remedies, when NORMAN'S ELECTRIC BELTS will cure you. Use one and you will find immediate benefit. Every one is guaranteed.

LUMBAGO.—Those who suffer from this disease will find a friend in NORMAN'S ELECTRIC BELTS when all other remedies fail. Ask your druggist for it, and take no other Guaranteed.

CONSTIPATION AND BILIOUSNESS and all disorders of the Stomach and Liver are corrected by using NORMAN'S ELECTRIC BELTS Try one and be convinced. Guaranteed.

FEMALE TROUBLES.—Ladies are benefited more by NORMAN'S ELECTRIC BELTS than by all the science of medicine. They are comfortable and durable. Guaranteed.

WEAKNESS and Lassitude yield to the influence of NORMAN'S ELECTRIC BELTS when all other remedies fail. Try one and you will suffer no longer. Every belt guaranteed.

NERVOUS DEBILITY.—This dreaded and miserable disease is immediately relieved by the use of NORMAN'S ELECTRIC BELTS. Ask for them, take no other. Every belt guaranteed.

INDIGESTION AND SLEEPLESSNESS.—This seven headed monster is more easily overcome by the use of NORMAN'S ELECTRIC BELTS than any other remedy, and it possibly cannot do any injury. Guaranteed.

RHEUMATISM cannot remain long with any one who uses NORMAN'S ELECTRIC BELTS, and Neuralgia is driven away like smoke before the wind. Give one a trial. Every belt guaranteed.

NERVOUSNESS may be entirely cured in a short time by using one of NORMAN'S ELECTRIC BELTS, without any fear of injury. Try one and be convinced. Guaranteed.

### *TESTIMONIALS—A few Sample Testimonials that speak for Themselves.*

MR. A. NORMAN, WALLATTA, D.T., December 17th, 1883.

DEAR SIR,—I am happy to inform you that the Appliances I got from your Chicago agent have had a most marvellous effect upon my patient who suffered from Sciatica. He could get very little relief from medicine. Shortly after he got your belts he was able to get out of bed, and is now on a visit to his Canadian friends. Send me some more circulars. Yours truly, DR. D. McLACHLAN.

MR. NORMAN, PERTH, ONT., June, 1883.

DEAR SIR,—I have been wearing your Electric Insoles for about six months, and have been greatly benefited by them. I recommend them to all who suffer from Rheumatism. Yours truly, MRS. J. GUTHRIE.

A. NORMAN, ESQ., OTTAWA, September 3rd, 1883.

DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way. Yours truly, R. E. HALLIBURTON.

A. NORMAN, ESQ., PETERBOROUGH, October 15th, 1884.

DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured my cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good. Yours truly, J. GREEN.

## ☞CURATIVE BATHS: Electric, Vapor, Sulphur, and Hot and Cold Baths.

Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them. Consultation free. Circular on application.

L13-1

## A. NORMAN, Proprietor, 4 Queen Street East, Toronto.

# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

**VOL. 5. PETERBOROUGH, ONT., JULY 15, 1885. NO. 14.**


## FOREST FIRES AND THEIR EFFECTS ON TRADE.

We learn from the American lumber papers that forest fires have been more than usually prevalent and destructive this spring. Following closely on the heels of the late destructive fire at Chicago, and the enormous amount of prepared timber actually turned into smoke and ashes and returned in that shape to the land and the atmosphere, have been the widespread visits of the fire fiend to the raw material where it grows. In the month of May forest fires were raging along the line of the Mackinal and Marquette railroad, settlement visited, timber and logs destroyed, and people driven from their homes. Fire had also been devastating along the Harrison branch of the F. & A. P. M. railroad, and besides the destruction of standing timber 400,000 feet of Norway logs, on skids, were burned, also 800,000 feet of 15 per cent. white pine logs, on skids, were totally destroyed. In fact, the fires seem very impartial, and to visit most of the northern States indiscriminately, Pennsylvania, Maine and New Jersey having also suffered seriously from them. Nor has Canada been exempt, and even the remote region of British Columbia has suffered a heavy visitation. The town of Farwell was stated to be totally destroyed, railway property burned up, and other extensive damage done. It seems as if fires were an epidemic that breaks out uncontrollably, and at unexpectedly odd times and seasons, and it is said that the year 1885 will be noted for its forest fires and great destruction, even before the snow was fairly off the ground or had disappeared from the woods.

It is remarkable, too, that town fires seem to rage in sympathy with the forests, for it is not easy to understand why the buildings and timber stacks in a settlement or city should be destroyed because the forest next to the locality happens to be on fire, with broad lands cleared and cultivated between. One would not imagine a saw mill to be without a considerable space of ground, well cleared of its timber around it; yet we are told that the water-power, saw-mill, boarding house, etc., on the estate of Paul Camine at Old Stronach (Michigan) was totally destroyed to the value of $20,000, and that "the fire originated from forest fires, which have been very destructive in that vicinity. Lakeside, near Muskegon, was also visited. The fire originated in G. E. Wood's lumber yard. Mill saved, but 5,000,000 feet of lumber licked up." Surely the forest fire must be held guiltless of these disasters? Yet somehow they occur so simultaneously that there appears to be some latent connection between them, which is allowed as a reasonable excuse for them if the forest, miles away or just within sight, were on fire. On this subject, a moralist in a recent number of the New York *Record and Guide* makes the following sensible remarks, not unworthy of Touchstone, or even of the "Melancholy Jacques" himself:—

"Our philosophy and knowledge of the occult forces of nature are not deep enough to explain the laws that govern casualties and crimes. One railway train jumps the track, and directly following a half dozen similar accidents are reported from different section of the country. A steamship is blown up, burned, or foundered, and on several widly separated seas the casualty is repeated in various modified forms. Boston followed Chicago in an attempt to imitate or initiate the general conflgration with the Second Adventists predict, and murder and suicide are confessedly epidemic. Who can explain this mystery? A despatch to one of the morning papers, dated Hornellsville, May 17th, gave an account of 12 suicides in a single week in that town and vicinity. We mention the fact but attempt no explanation. Probably this frightful record of self-immolation would be thought no mystery by the people of some of the adjacent towns, rivals to Hornellsville. They would call it only a natural expression of the disgust which all people whose experience of life is limited to Hornellsville must feel. But this would be only ill-natured and furnish no clue to the philosophy of which we are in search."

The conclusion arrived at from these frequent fires is that the price of timber must harden at the fountain head, but in the meantime the lumbermen's labor is not interrupted. For instance, it is stated that a gentleman from the Lake Superior lumber region reports as follows: "The cut on Bad and White rivers has been greatly in excess of what was intended, but the lumbermen are hopeful, and fear their log supply will not be adequate to fill the demand. Shipments by lake as well as by rail are steadily on the increase, and orders accumulating as the season moves on." Thus it appears that, while fires are destroying the woods wholesale, enough remains to keep the lumbermen as fully employed as if there had been no fires at all.

The trade reports from America like those at home, speak unfavorably of the actual state of trade, though always hopeful. The opinion of the paper just quoted is that "the business of the country is depressed. Enterprise of all kinds is discouraged. Speculation is dead, and hence railroad business in the aggregate is not profitable, more from the cutting of rates than the decrease of tonnage carried. The one hopeful sign is that the railroads do more business than ever before, but at unremunerative rates."

But in describing decay of trade in vast commercial communities like those of Great Britain and America such statements must not be taken too literally, and they are often accompanied by information, incidently brought forward, which is directly opposed to this doctrine. As for instance the New Orleans *Times Democrat* tells us that the Baltimore *Manufacturers' Record*, in its review of new enterprises reported for the week, tends strongly to show that there is a great deal of activity and not a little progress in nearly all the States. Alabama has a new land and improvement company, with a capital of $100,000, and which, it is said, will have charge of the Mobile and Ohio lands. Florida is alive with new sugar and saw mills. Georgia reports a new street railway in Rome, and saw mills, planing mills, and many small industries are being started. Kentucky appears with a new flour mill, a large saw mill, and the large distillery at Owenboro, lately burned is being rebuilt. In Louisiana, New Orleans people are starting a company to manufacture textile fabrics. The capital $375,000 is reported as subscribed. Monroe is to have enlarged shops of the Vicksburg, Shreveport, and Pacific Railway, and street cars and improvents are under way in many parts of the state. A new oil and fertilizer manufacturing company has been organized in Mississippi, at Aberdeen. North Carolina comes to the front with a tobacco factory chemical works, saw mills, and planing mills. Tennessee is credited with a new coal and coke company, a tobacco factory, and many new enterprises before reported or not yet ready. Texas is heard from througha paper mill, a flour mill, saw mills, an iron foundry, and so on. Virginia has a new steam flour mill company, development plants for coal and gold mines, a carriage factory going up and several minor matters. West Virginia has Bessemer steel works, now building at Wheeling, with capacity of 300 tons of steel daily. A new coal mine has been opened near Mt. Carbon. Charleston is a new foundry ahead, and the state is generally doing her duty in the matter of progress. It is very pleasing to encounter these constant evidences that the section is awake to the necessities and opportunities of the hour. The Exposition has been availed of to interest both "home folk" and strangers in many industrial chances, and the results are beginning to be apparent in all portions of the south. As the financial situation of the country improves these evidences will be largely multiplied, and especially as to the leading industries, such as iron, coal and timber.

In like manner, while we are lamenting over the depression of trade and the absence of speculation in our own country, in common with our contemporaries, other parts of our paper, for example our columns of "Building Notes," and our "Building Supplement," bear testimony to what an immense deal of good business is still doing in spite of every drawback.

These forest fires, of course, do mighty mischief, but they burn up a great deal of rubbish that would never have been exported. Some effect they may have on prices, but the quantity to come forward to this country will hardly be diminished by them. Our American correspondent's letter published on 6th June, takes this view, as he calculates the excess of this year's cut in the States will greatly exceed that of last year, and the lumbermen of Canada are not likely to be behindhand. Conventions may meet and propose to raise prices by combination, but after they separate each individual is apt to look out for himself, and, perhaps, to forget the conditions to which he has formally assented. At all events, some do; and even one dissentient breaks up the good faith of the understanding, and prices relapse into their old irregularity.

At present it looks as though there would be plenty of timber in the British market from all the shipping countries, and the best hope is that there may be plenty of home trade to render it welcome.

The unexpected they say is the likeliest to happen, and a good demand may spring up when we have almost abandoned the hope of it. There is plenty of trade still, but its profits are too much subdivided. There are so many in the race that not a few must be out of the running.—*Timber Trades Journal.*

## THE CANADIAN LOAN.

LONDON, June 29.—The tenders for the Canadian loan of four million pounds sterling were opened to day, and it was found the loan was subscribed for three times over. The minimum fixed was ninety-nine, and the bonds were for fifty years with the option reserved by the Government of Canada to redeem them at the end of twenty five years. No sinking fund is attached to this loan. The first coupons will be due the 1st January next. The whole four millions have been tendered for at rates which bring up the rate per $100 to £1 17s. 8d. premium. The three and a half per cent. loan obtained in June, 1884, was equal to 102 for fours with sinking fund attached. The sinking fund in former loans is one half of one per cent. The loan just effected without sinking fund is, therefore, three-eighths of one per cent. better than the three and a half per cent. loan of last year with its one half per cent. sinking fund, without calculating the gain made in consequence of the change in the plan of allotment and in time of first payment of interest coupons. The allowance in the loan of to day is about one half per cent. In 1878 Sir Leonard Tilley's four per cent. loan netted ninety-five and a half and in 1874 Sir Richard Cartwright's loan netted eighty-seven and a half. Both these loans had sinking funds attached. The success of this new loan shows the desire of British capitalists to invest in Canadian securities.

GEORGE A. Priest & Co., Port Arthur, Ont., are succeeded by the Port Arthur Lumbering Company.

## LUMBERING IN POLAND.

It may be of interest to those who are engaged in the lumbering business in the United States, to hear an account, once in a while of how these operations are performed in other countries, and thus be enabled to make comparisons. Mr. Quinn, the Commissioner of Crown Lands in Quebec, gives the following description of the lumbering business in the valleys of Eastern Prussia and Poland:—All parties to whom I was introduced seemed earnestly inclined to afford me all the information possible relative to the trade of Danzig. They are straightforward, open and candid men, and did not appear to have anything to conceal of a general character with respect to the business. They all complain that the standing timber is fast disappearing, that it is rising in price at each and every succeeding sale, and that the distance they have to haul is constantly increasing. Mr. Grade, of the firm of Messrs. Albrecht & Co., of Danzig, said timber not requiring to be hauled more than 12 to 15 English miles is considered handy river. To have to haul six to eight German miles (30 to 40 English) is by no means unusual. Afterwards it has to be driven a great distance by a tortuous, tedious and expensive route. A great proportion of the lumber brought to the market is made a long way to the south and southeast of Warsaw, and much of it is brought from Galicia, in Austrain Poland. The general custom of selling the standing timber is as follows: A certain limit or circuit is sold, which is supposed to contain a specified number of trees, suitable to be made into timber, for a round sum or for so much per tree. The number of trees is generally overrated, but such is the competition among purchasers that they submit to this. The purchaser is bound to take off the quantity within a given time, if to be found; but in no case is any deduction made. He is not allowed to take more than the number stipulated for, should they even be there, without paying additionally for them. Every tree which is cut down counts, whether rotten or otherwise. I went with Mr. Albrecht and looked over all the lumber in the river, down to the harbor. There are but little remaining after the spring shipments, and none of the new timber had then arrived. It was expected in a few days. The timber is separated into three classes—1st, 2nd, 3rd. Mr. Albrecht told me told me that to get any considerable quantity of first quality is very difficult and expensive, and scarcely any of it is to be had without having to be hauled 30 or 40 English miles. The value of first quality redwood here at present is 55s. per load, free on board; 2nd, 45s.; 3rd class about 41s. per load. The freights just then were very low, not more than 15s. per load to the east coast of England. Large quantities of redwood are now being sawn up by the different establishments here into deck plank for the English and French Governments. The prices paid by the French Government are for 1st. quality 21s. sterling for 40 feet long, 3 inches thick, and 9 inches broad; and two-thirds that amount for 2nd. quality. There must not be any pith in those planks, and they must show heartwood the whole length, of at least seven inches wide. I find that the production of last winter does not exceed that of the previous year. A considerable quantity of redwood is also being prepared here, intended for the defences at Southampton, England. The pieces are all to be 35 feet long, 12 inches square, and to show a certain amount of heart-wood on all sides. The price to be paid is 65s. per load, free on board—a price with which the sellers seem well satisfied. The timber purchased from the Prussian Government in almost all cases is cut down and squared at their expense. A portion of the timber is also got out round the full length of the trees. It is then sold by public auction—the square timber by the foot, the round timber by the piece. The latter timber is brought down without being squared, and part of it shipped as spars. The remainder is sawn and manufactured into different descriptions of scantling.

As to the forests of the Baltic provinces, strictly speaking they are are nearly all cut down, at least the larger sized trees are, and those now obtained have in many cases to be transported a distance of some 20 or 30 versts (14 or 20 miles), on axle or sledge. In general the latter mode of conveyance is preferred, as it is the cheaper of the two. From this it will be seen that a good deal depends on the kind of winter we have, as good sled roads are desirable for the transport of timber to the edge of the water, by which it is floated down in spring at the breaking up of the ice. This department of the trade, I may mention, is almost entirely in the hands of the Israelities. To give you some idea of the extent of timber trade in Riga I may mention that there are annually exported about 2,500,000 of railway sleepers, and about 300,000 logs of square timber, which are hewn in the forests, all the chips and branches of which remain there to rot, and make manure for the next forest that grows in their place. There is no attempt made to clean out such refuse, in fact there is no fostering care whatever employed in such things, it is entirely left to nature. Anything can be made here, such as squared timber, railway sleepers, etc., and it is a very rare thing indeed to replace any of the forests that have been so wrought out, by planting young trees in their stead; nature is allowed to do that herself, and of course will accomplish it in a series of years. There are still a few forests in these provinces held by the crown, the first cost of which is so high that at present prices it almost precludes merchants from working them to advantage.

The most of the timber exported from Riga at the present time comes from the provinces of Smolensk and Vitepsk, along the banks of the river Dwina and its tributaries, but owing to the great distances at which some of the woods are situated from water communication with the river there is a good deal of extra extra expense incurred for the transport, and this is increasing yearly, consequently the price of timber is getting much higher to work out this one problem. In addition to the above exports there is another large demand which must make a big hole in the woods yearly, viz: There are 1,500,000 of fir logs, averaging 24 feet in length, rafted down from the above mentioned provinces annually, and cut up into 3 inch planks and boards, and exported to England, France, Belguim, Holland and Germany. Notwithstanding these great quantities, I am told that the increasing demands can be met for a great many years to come, subject to an ncrease in price owing to the extra transport to water communication, which is indispensable to the trade. As to the titles of official reports or documents issued by the Government, there is no one here can enlighten me on the subject, all saying they never hoard of any such things. There are no wholesale joinery establishments here at present, but formerly there was one in connection with a large saw mill which was burned down about 18 months ago; and that part was not rebuilt, as it was considered by the proprietors to be a bad speculation.

## GOOD ADVICE.

It has been noticed, says a contemporary, that boiler explosions are especially frequent in the morning. Take, for example, an engine which works during the day with steam at six atmospheres. The workmen leave the factory at 7 P. M.; about six o'clock the fireman reduces his fires and leaves the boiler with the guage at four atmospheres. On returning the next morning, at 5.30, he generally finds the guage at 1.5 or two atmospheres, with a fine water level. He profits by the reserved heat, which represents a certain expenditure of fuel, as an economist he utilizes it and drives his fires, to be ready for the return of the workmen, without suspecting the dangers concealed in the water which has been boiling all night. He does not feed his boilers, because they are at a good level. In other words, he prepares, unconsciously, the conditions which are most favorable to superheating and a consequent sudden and terrible explosion, which will be attributed to some mysterious and unknown cause. Treves recommends that, before starting the fires in the morning, the fireman should restore to the water the air which it needs, by injecting it, with the aid of pumps and suitable tubes, into the lower portions of the boiler. As the guage of the pump indicates a pressure which is superior to that of the remaining steam, all danger is removed; the fires can be driven, ebulition goes on nominally, and explosons become naturally impossible.

## STEAM ENGINEERING.

Have just finished five years of "tramping." In that time have come in contact with thousands of stationary engineers. A few of them are capable of filling far better positions than they have. Some, if they could have had the advantages of education, would have engraved their names on the portals of engineering fame. As it is, they are ornaments to their profession The majority of the men who have charge of the immense steam power of this country, we are sorry to say, are mere machines, laborers, hewers of wood and drawers of water; men who cannot calculate the safe pressure of boilers, or correctly adjust a safety valve,—one of them once told us that a safety valve raised two inches from its seat—they know nothing of the laws of combustion, expansion of steam, in fact nothing regarding their business; they scoff at an engineer who reads, stigmatizing him as a "book engineer," "theorist" and "parlor engineer." With such, it is like casting pearls before swine to argue, but with the "book engineer" it is pleasure; he knows something besides "what he learned in a shop." We often wonder if those 'practical engineers" carry into other walks of, life their hatred of men who read and call them "book lawyers," "book doctors," "book druggists," "book ministers," etc. We contend that if reading, and by reading we mean earnest research, will prepare the lawyer, the doctor, the druggist or the minister for their respective callings, then it will the engineer, for in our opinion he is called to meet graver responsibilities than they. The lawyer may neglect his client, the doctor his patient, the druggist make a mistake in a prescription, the minister neglect the proper word at the proper time, and what is the result? In none of these cases can more than one suffer, one life be lost. How is it with the engineer? He ought to realize his position; he must never neglect, never forget, never mistake; if he does, death and destruction comes not only to himself, but to hundreds of his fellow men. He is his brother's keeper, and he ought to prepare himself by all honorable means to perfect the knowledge of steam, its use and abuse. Let him never be ashamed to ask for information, or have a work on engineering be seen sticking out of his pocket; for the time will come among engineers when education will triumph over ignorance, when the stoppers and starters will be placed where they belong, and the man who knows will take the reins. We could fill whole papers of incidents and conversations with these so called "engineers" that many of your readers would be inclined to doubt. If manufacturers of engines would insist that competent men be engaged to handle their wares, half the battle would be won, their goods would give better satisfaction, and all be benefited.—*Tramp.*

## HOW TREES ARE DESTROYED.

The lumberman's axe and the settler's fire, it appears, says the *Lumberman's Gazette*, are not the only agencies in the denudation of land against which precautionery measures must be taken. Browsing cattle are reported as destructive to California forests as fire is elsewhere. A current item states that herds of sheep and cattle are driven up to the mountains every year to graze, and they devour every green thing from the foothills to the meadows on the summit of the ranges. When the grass falls the young seedling trees are eaten off, or the bark peeled so that the undergrowth is entirely destroyed. In Michigan the annual fires of the Indians used to keep the woods clear of saplings and undergrowth and there is no doubt that the forests are denser now than when the Indians occupied the land. The browsing cattle of California seems to be doing for the forests of that state what the Indian's fires formerly did for the Michigan woods.

## Water with Lead in it.

Paralysis, colic, gout, rheumatism, kidney disease, blindness and insanity may all come, it seems, from drinking water with lead in it. Under these circumstances, a simple test for discovering the presence of lead in water may well be useful. It consists of adding a little tincture of cochineal, which, if there be the least trace of lead in the water, will color it blue instead of rose.

## ATMOSPHERIC INFLUENCE ON ADHESION.

The adhesion of belts to pulleys is frequently attributed to the pressure of the atmosphere, and in order to show how much the air influences belts in this particular, the following simple experiments are presented: Take a circular disc of leather, say three or four inches in diameter, with knotted string secured in its centre, and when well water-soaked, press it upon any level wetted surface. The "boys" calls this apparatus a "sucker," and it well illustrates the phenomenon of atmospheric pressure, or "suction," as it is usually called. If an effort to draw it away from this surface by the string, it will be found resisting very forcibly, but the gentlest pressure will slide it on the wetted surface; it does not offer the slightest opposition to motion in the direction of its face, nor will it resist removal if raised first at the edge and then peeled off. The atmosphere does not press two bodies together when it can get between them; it is only when excluded by a tight joint that the development of its pressure is possible, and it becomes sensible only when an effort is made to seperate them by a force acting at right angles to the plane of their faces.

Another simple experiment shows than when two level, smooth, and clean surfaces come together by a motion like the closing of a book—which is similar to that of a belt coming in contact with its pulley—there will be retained between the two a thin film of air, and, while this remains, the centact of the two is imperfect and the sliding of one over the other is easily performed. Take two iron "surface-plates" which have been scraped down to a practically perfect plane, and lay one of these on the other like a belt goes to a pulley; they will be found not to be in contact at all, but as if floating one on the other, and the top one will slide off by its own weight at the least inclination of the lower one. Much of this interposed film of air can be displaced by a sliding of one plate on the other starting say at one corner, with the plates in close contact, and carefully pushing one over the other, holding it the while close to, as if to keep the air out. Then indeed, an obstinate resistance to sliding will be felt, and the friction of nearer contact will be made thoroughly sensible. But this way of bringing surfaces into contact has nothing to do with belt action, except to prove the need of a plastic surface on belt and pulley which will enable them to adhere, while in contact with, sufficient force to prevent sliding, and at the same time be uninfluenced by the intirmedium of air. And lastly, in order to put the matter to actual test, an apparatus was constructed, such that a leather belt was made to slide on the face of a smooth iron pulley, and also to drive the same iron pulley up to slipping of the belt. In both cases the adhesion or driving power of the belt was held by a spring balance, so that the work of the belt could be observed. Experiments were tried with this mechanism placed in a bell-glass jar on an air pump plate, with and without air in the jar, and if any difference was observed in the adhesion of the belt to the pulley, it had more in vacuum than when the atmosphere was present.—*Cooper on Belting.*

## INGENIOUS WOOD CARVERS.

Over the doorway of a building on the west side of New York city is a sign which reads "Artistic Bric a-brac." In a small square room up one flight of stairs were several tables laden ed with many curious and interesting productions of German and Swiss artists. "The Swiss peasantry are the greatest wood carvers in the world," the proprietor said. "Carving seems to be as natural with them as eating. They carve out of wood with wonderful ingenuity, anything from a simple paper knife to an elaborate piece of architecture in miniature. Aside from wood carving and some other mechanical occupations they are not good for anything, being very simple, ignorant people but they have a genius for caving, and have a natural skill for copying from nature. Their floral pieces are regarded as masterpieces, and serve as models for young sculptors. It is only necessary to furnish them with a photographic design of what is wanted. Most dealers wh import Swiss carvings do this, although the Swiss peasantry produce numberless things

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themselves without the aid of any suggestions. They carve out of wood almost every kind of fancy articles, such as nutcrackers, inkstands, jewelry cases, cuckoo clocks, ladies' work boxes, and a large number of other things too numerous to mention. The tools they use are very simple, the carving being done by hand. The articles they carve are ingeniously ornamented with leaves and flowers, and some of their designs are extremely odd; they are always artistic. Here is a piece of carving in the shape of a nutcracker. It is a lifelike representation of a bear on its haunches. Of course it is made more for ornament than use, but its artistic merit is worthy of careful study. The Swiss have a knack of turning the most simple article into a real work of art. Take this book rack, for instance," and the dealer produced a very simple form of book holder for the library table, having two side pieces on a sliding base, "see how artistically the side pieces are carved, showing in bold relief a double rose surrounded with a mass of leaves and vines.

"One advantage the Swiss have is the wood which they use. This is remarkably fine, and free from knots, and a tool cuts it as easily across as with the grain. The kind mostly used is known to the trade as peach wood, which it closely resembles in every respect. Another kind of wood which is largely used is called satin wood. This has a pure white color, and, like the other variety, is entirely free from knots, and peculiarly even in respect to hardness.

"The art of the Swiss in carving wood first attracted attention about fifty years ago. It was not, however, until years afterwards that it was turned to account in a commercial point of view, and even then the sale of Swiss carvings were restricted to tourists in the summer season, who made their purchases through the intermediary of hotel porters. Hence the trade was for a long time very small and unremunerative. But in the course of time local capitalists took the matter in hand, opened workshops and began an export trade. The business of wood carving now finds employment for several hundred persons. In fact, in one establishment three hundred persons of both sexes are employed. The women have great delicacy of touch, and their work in certain branches are preferred to that of men. Each artisan employed in the workshops has his or her specialty, the choice of which is left to individual taste. Some have an aptitude for and excel in the modeling of groups of animals; others prefer to carve various fancy articles with floral paterns, and some build miniature chalets. The latter is one of the most popular articles of Swiss handiwork. As usually made, it is composed of different colored woods. The thatches with the ropes and stones to hold them on, and the deep roof are prominent features. The lower storey shows a stable, while the upper storeys are made to indicate the family dwelling. The surroundings, including the fence, courtyard, pump and spring are also given. The roof is so constructed that it can be raised like a lid, and the part which represents the upper stories is lined with plush, and s intended as the receptacle for jewels. A movable partition divides this also from the first storey, which contains a music box, which is set going by lifting the top cover. The price of these articles range from $10 to $35.

"Few people make a specialty of Swiss carvings, for the reason that the production is very limited, owing to inability to turn out the goods fast enough by hand. Besides, all the rare bits of carving are made by the peasants at their homes in the Alps, who work only during the winter season. In the summer they are occupied in tilling the soil and tending their herds of goats on the hillsides, a pursuit which they love so much that no amount of money could entice them from it."

A REBELLION is said to have broken out in Venezuela.

LORD Rothschild took his seat in the House of Lords on Friday.

## FURNITURE WOOD.

Noticing the changes in the styles of furniture the Boston *Commercial Bulletin* thus refers to the wood used :

In chamber sets also the change towards a better class of goods is seen in the increased demand for ash finished with oil and shellac in natural colors. The principal woods used for furniture are walnut, cherry and mahogany. Walnut has been and may be still regarded as the most popular wood, though in the last two or three years the demand for cherry has increased very rapidly, and fully as much of it is now used as walnut. It is stained and finished up in imitation of mahogany, its natural color being a dull, light shade. The supply of cherry in the country is small as compared with that of other woods. The demand for it during the last few years has caused firm and advancing prices, its cost being now about the same as walnut.

Mahogany is becoming more popular every year also. It is a beautiful wood, but costs from one third to one half more than walnut and only about one third as much of it is used. The three principal varieties are the Mexican, Cuban and San Domingan. The Mexican logs are the larger but the San Domingan has the better grain. Most of the mahogany used in this market is Mexican. Ash is sometimes manufactured up into chamber sets and is finished in natural colors. Ash, maple and beech are sometimes stained and finished to imitate mahogany and are used more generally for this purpose in the west than in this section. Should the price of cherry advance, owing to the increasing demand, it is very probable that the use of these woods as imitation mahogany would be largely increased. In the east, ash, maple and beech are obtained in New Hampshire, Vermont and Canada. In the west they are obtained in Michigan, Indiana, Kentucky, Tennessee and the Virginias. Cherry and walnut come from the last mentioned states. Michigan, however, furnishes very little.

## THE QUEBEC TRADE.

QUEBEC, July 3.—The following transactions have transpired during the week in the export of freights from Quebec :—The Clyde, 16s. 6d.; Fleetwood, timber, 20s ; Liverpool, timber, $21 ; Cardiff, timber, 20s., deals 52s. 6d. The timber market is dull. Some drams of waney of about 20 inches have been placed 35 to 35c. with timber a year older at 33½c. for about 19 inch. Third class deals, all regulars have been sold, ex barge, at $46.50, and with 25 per cent. oddments at $32. There are no transactions in spruce deals reported.

The recent heavy rains have done much damage to the dams and booms on the rivers around Quebec which will retard the sawing considerably, besides which a large number of logs have been lost. These summer floods are the most serious within memory.

Since the opening of navigation 273 seagoing vessels have entered and 103 cleared at this port.

### Boiler Explosion at East Boston.

A boiler used for a hoisting engine was blown into the air at the wharf of the national Dock and Warehouse Company, East Boston, Tuesday. The boiler was close by the ship Agenor, where it had been placed to unload a lot o sugar consigned to E. Williams, of State street, The engineer said after the explosion that he had only 120 pounds of steam presure at the time of the explosion, which was twenty pounds less than the boiler usually carried. When the explosion occurred, the boiler was seen shooting into the main rigging of the Agenor, and then, striking the main rigging on the port side, it fell on the wharf again about four feet from the edge and twenty feet from its original position. When the boiler exploded it sent large pieces of iron flying in all directions. Several persons were injured.

THE number of books registered in the Toronto Free Library is 34,704.

THE compact between the Tories and Parnellities is said to be weakening.

## NEW WOOD PRESERVATIVES.

Immersing the lower ends of fence posts in hot coal tar will preserve the outside for years, but it very frequently happens that in using small trees from four to eight inches in diameter the heart wood is the first to decay. This often occurs with chestnut posts that are set before they are thoroughly seasoned. To prevent this decay at the centre, as well as of all that part of the post placed below ground, by the using of wood preserving solutions, my friend and neighbor, J. J. Suckert, Ph. D., suggests a system which strikes me as being not only novel, but exceedingly valuable as well. It is to have a hole in the centre of the post, from the bottom upward, to a point that shall be above the ground when the post is in position. Then bore another hole in the side of the post with a slight inclination downward, making an opening in the centre hole, which will allow free passage. A wooden plug, two or three inches long, should be driven snugly into the hole at the bottom of the post, in order to prevent the escape of any liquid that may be used in the operation. Now when the posts are set in an upright position, a preservative solution may be introduced into the hole in the side and the centre one filled with it, after which a cork or plug of some kind should be inserted in the side hole to prevent evaporation, as well as to keep out dust and insects. The solution thus introduced will gradually be absorbed by the surrounding wood, until all parts along the entire length of the central cavity must become completely saturated. When the solutions used have been taken up by the surrounding wood, it will only be necessary to withdraw the cork, or plug, and apply more, if it is thought desirable. A common watering pot with a slender spout will be a handy vessel to use in distributing the solutions.

Petroleum, creosote, corrosive sublimate, or any other of the well known wood preservatives may be used in this way. Telegraph posts might be prepared in the same way, and if the central reservoir were kept filled with petroleum, they would last one hundred years or more. Where a large number of posts and poles are to be prepared, it would be cheaper to have the holes bored by steam or horse power than by hand. With very open and porous wood it is quite probable that a hole bored in the side of the post and above the ground, and deep enough to hold a pint or more of creosote or some similar solution, would answer, but I think a central cavity reaching to the bottom would be best.—*American Agriculturist.*

## HOW FAST?

"It is easy enough to run a locomotive a mile a minute," said a railway superintendent of motive power to the *Herald* reporter. "An accommodation train on our road, scheduled at about thirty miles an hour, frequently runs at the rate of 60 for short distances between stations. It's the stops that break up speed, and that is one reason why they can make such speed over in England. Their crossings there are rarely at grade. The new road must get over or under the old one. The result is they have very few stops to make. Now, take the Lake Shore limited between here and New York. It is secheduled to run through—970 miles in twenty-five hours. That is almost thirty nine miles an hour. Fifty-five minutes are lost at Albany, Syracus, Rochester, Buffalo, Erie, Cleveland, Toledo and Elkhart. Besides these division stations, where engines are changed, some time is lost in getting through all cities, and over some bridges, like the long trestle at Sandusky. But this is not all. There are twenty-two grade crossings between New York and Chicago, and for every one of them must come to a standstill. Engineers agree that no stop can be made without losing at least four minutes. On the run we are speaking of that means about ninety minutes lost by grade crossings. Taking out all delays and stops the actual running time is about 22 hours, or at the rate of 40 miles an hour. The engineers tell me that not an hour passes that they do not run one or more miles faster than a mile a minute. But for the grade crossings and the law requiring all trains to come to a full stop before them the run from New York to Chicago in 25 hours would be just as easy as anything. Did you ever hear where that law started? Well, it was right here in Chicago. April 25th, 1852—I remember the day well—a train on the Michigan Southern collided with a Michigan Central train at what was then called Grand Junction, near Grand Crossing. Twenty-five people were killed and forty or fifty injured. An indignant meeting was called here in Chicago and resolutions were adopted demanding a law requiring all trains to come to a stop before such crossings, and compelling the employment of a targetman. That was the first suggestion of the idea, and to-day there are not less than 5,000 grade crossings in this country, at each of which one man, and at many of them two men are employed.

"A locomotive can easily travel at the rate of a mile a minute on a straight, level track if not overloaded and if a good steamer. I myself have driven an engine as fast as 67 miles an hour for five or ten minutes, and there is a well authenticated case of a locomotive moving at the rate of 73 miles an hour for a short time, the fastest record ever made with a locomotive. That was 8,185 feet a minute, or 460 revolutions a minute for a five and a half foot driver. That is faster than you can count and faster than any steam engine of that type should run. The English are ahead of us on fast locomotives. The build their engines with but one driver on a side, and thus avoid the danger of the parallel rods connecting geared drivers. Set a locomotive going as fast as she can hum and there is great danger of accident—that the parallel rods will break. Think of those four wheels on two axles, all geared tight, and moving at that pace. A slight jump, a spring or a tilt to one side is likely to alter the adjustment, bring on an unequal strain and snap one of the rods as if they were pipe-stems.

"Do I believe locomotives will be built to run 60 miles an hour, schedule? I certainly do. What is there to hinder? It is simply a question of power and economy. Build a two driver locomotive with ten foot wheels and sufficient steam capacity for the loads she is intended to draw, and there is no reason why she should not run three miles in two minutes. On a first class track there is no more danger of derailment at 60 miles an hour than at 30. Cost a small fortune to build a locomotive? No, indeed, not now. A few years ago a good engine was worth from £14,000 to $17,000, but now they can be built for from $7,000 to $9,000. some switch engines do not cost more than $4,000. The usual type of locomotive has about 200 separate parts, and the life of the machine is put at ten years, though there are engines in Chicago to day that have run ten years without overhauling, and are good for several years more. The flues of locomotive boilers need constant attention. The first locomotive that was ever seen in Cnicago is still on her legs and able to work, though no work is done with it. She stands in a shed out at the Northwestern shops."—*Chicago Herald.*

## DEFECTIVE SAFETY-VALVES.

Having seen many defective safety-valves and had some experience with them, I have thought it worth while to give my ideas regarding them. Some time ago, when I was but fourteen years old, and knew no more about an engine and boiler than the workmen did about me, it so happened that I was given charge of a portable threshing engine which had a very defective safety-valve. It was of the old ball and lever type, too well known to need any description. The valve had to be keyed down when moving from place to place, and the ball had to be taken off or it would shake off; and when the engine was at work, the motion would shake the ball so that there was a continual waste of steam, which was quite annoying to me, as I very often make steam enough to run the machine; so I used to key the valve down tight, so as to hold what steam I had, and when the engine had to be stopped, and the fire was strong, I would look sharp, and open the fire door and, perhaps, throw cold water in on the fire, taking good care to get out of the way of the steam which came rushing out of the door. I ran that engine for two threshing seasons without any accident, which was owing probably more to good luck than good management.

I then ran another portable engine of another make, with about the same kind of safety-valve, but instead of the objectionable weight the lever was held down by a spring, which I think was also very objectionable, because when steam should have been blowing off freely, the spring was so far out on the lever that a very slight lift of valve would increase the tension of the spring, and as this increase of tension was not provided for in the valve, of course steam would not blow off much till it had raised some ten or fifteen pounds beyond point of blow-off, and as the valve was liable to stick fast at any time it was not only very dangerous, but a perfect nuisance.

I had so much trouble with this valve leaking and sticking that I persuaded my father, who owned the engine, to let me get a spring pop valve, which I used for four years, and never but once had any trouble with it. That was when a small chip of iron got in the way when the valve was shutting down, and the chip got fastened, so that raising the valve would not let it out, and I was obliged to let steam down and take the valve apart. This valve would relieve the boiler under all circumstances, and I never knew it to leak or stick.

The next boiler that I took charge of was a saw-mill boiler of the locomotive type, and in looked as if it might have been older that myself. It had just about such a safety-valve as I have described above, and I soon replaced it with one of Crosby's spring pop-valves, and since then I have used no other, though I think there are others as good as the Crosby.

It seems to me that engine-boiler makers are much too careless about providing their boilers with good safety-valves.

Two years ago I was occasionally at a new bone-mill in which were an engine and boiler from one of the most prominent engine-building companies. The boiler was of about 100 H.P., fitted with one of the old style safety-valves, which I thought was of very little account.

One time in particular, when I happened to be in this mill, one of the main driving belts gave out, and so the engine had to be stopped. They generally carried steam at about 80 pounds, with the valve set to blow off at 90 pounds, which I think it seldom did. This time steam was close to 110 pounds and the valve still close to its seat. The engineer got a piece of board and went up a ladder at the, side of the boiler wall and pried the lever up when the steam came out with a terrible noise and still kept on blowing after the engine had been started and steam was down to 80 pounds. The engineer then went up the ladder again and shut it down. I think such a valve not only very dangerous, but a continual nuisance. It should be replaced by one that will relieve the boiler under all circumstances without the help of the engineer, and close promptly when the pressure has been lowered sufficiently.

I could mention many other circumstances regarding defective safety-valves; but my article is already too long, I am afraid, so in conclusion I will simply say that owners of boilers cannot be to careful in avoiding the old-style lever valve, in which the lever comes so handy to hang old wrenches and such things on, so has to stop the valve from leaking so much steam.—*W. T. S., in Saw Mill Gazette.*

## Fatal Boiler Explosion.

BRADTOWN, Ky., June 26.—The boiler at the distillery of Matingly & Moore exploded this morning. Three of the work hands, Chas. McAtee, Chas Spaulding, and Mason Baird were killed instantly, and Bemis Allen was fatally bruised and burned. All were coloured. The scene at the distillery was horrible. Matingly & Moore's loss is great, as the building is wrecked and the machinery ruined.

CHARLES H. Nuite lately returned to Cheboygan, Mich., from an exploration of the Spanish river, Ont., region, in quest of timber, as an agent of Canada parties. He reports a large amount of pine and timber woods in the territory investigated, and that the streams are fine for running logs. The Sable river is a fine driving stream emptying into the Spanish. It is as large as the Cheboygan river for 100 miles, and has a rapid current. A jam of logs was run 100 miles on the Sable in four days.

## MODIFYING THE PROPORTIONS OF A ROOM.

To make a room appear higher, the plane surface of the ceiling should be increased by the mouldings of the cornice by panels, or, in the absence of these, by bands of color performing the same office. A vertical system of line should be adopted in mural decoration, and the mantel should be lower.

To make a room appear lower, exactly the opposite treatment should be adopted; that is to increase the plane ceiling, adopt a horizontal system of mural decoration, with a dado and a high mantel.

To make a room appear wider is accomplished to a certain extent by making it appear lower; but where this is undesirable, or where it is insufficient, the effect can be reached by adopting a mural decoration on a graduated scale of form, decreasing upward, so that two or more pattern at the top like those at the foot are found to occupy the same space as one at the foot, and this effect can be much increased by a gradation of color upward from dark to light.

To make a room appear narrower is accomplished to a certain extent by making it appear higher; but where this is undesirable or insufficient, it can be obtained by adopting a strongly-drawn large pattern in strong color for mural decoration.

To make a room appear longer is to an extent accomplished by making it appear lower and narrower; but where this is undesirable and inefficient the effect may be obtained by decreasing the scale and strength of color of the mural decoration adopted at the ends.

To make a room appear shorter is accomplished to an extent, by making it appear wider and higher; but the effect can be achieved by increasing the scale and strength of color of the mural decoration adopted at the ends.

Any of these effects can be modified or increased by the treatment of the floor surface; whither by the carpets, the rugs or painted boards, or by parquet flooring; lines running across a room, or rugs laid down at intervals, having the effect of shortening, and consequently, to an extent, of heightening and widening a room. Lines running in the length increase this dimension, and to an extent reduce the height and width. A polished floor increases the apparent height of an apartment by reflecting all vertical lines and prolonging them.—*Harper's Magazine.*

## LEAKY BOILER TUBES.

Tube ends, according to the *Locomotive*, are a source of annoyance in some types of boilers that give rise to much trouble. This is especially apt to be the case with boilers of the vertical type. The upper ends are exposed to the action of the heated gases, and there being no water to prevent overheating, they are soon loosened and set to leaking badly. This gives rise to corrosion of the ends of the tubes and the upper head, which in many cases goes on with great rapidity. It is no unusual thing to find the upper tube sheet of upright boilers eaten half way through and nearly all the tubes leaking badly. This leakage is not so apparent from steam pressure as it is from water pressure. To the unpractical boiler attendant everything may appear to be all right, but when the boiler is filled to the top with water, and pressure applied, there is generally some fun. The lower ends of tubes are also very apt to give more or less trouble, especially where upright boilers are used for heating purposes and the blow-off does not quite drain the boiler. This is generally the way the uprights of the pot hung type are arranged, and during the summer months, when the boiler is standing idle, the interior of the shell and the tubes, just at the surface of the water left in the boiler, is subjected to severe pitting. Sometimes the tubes of this class of boilers are completely riddled in a very few seasons, whereas, if properly cared for, they should last many years.

**"Fools Rush In, Where Angels fear to tread."**

So impetuous youth is often given to folly and indiscretions; and, as a result, nervous, mental and organic debility follow, memory is impaired self-confidence is lacking; at night bad dreams occur, premature old age seems setting in, ruin is in the track. In confidence, you can, and should write to Dr. R. V. Pierce, of Buffalo, N.Y. the author of a treatise for the benefit of that class of patients, and describe your symptoms and sufferings. He can cure you at your home and will send you full particulars by mail.

### THE MEASUREMENT OF ROUND TIMBER.

This is a subject of endless controversy, and we are entering upon it with misgivings that we shall not be able to clear up the deep mystery that has so long surrounded it.

Old Hoppus of timber measuring fame says:—

"1. With a rule measure the length of the piece in feet(and quarters of a foot if necessary) and set it down in your memorandum book: then reduce it to square timber thus:

"2. With a chalk line, or pack thread, gird the piece (if parallel) in any place, then double the line twice, and you have one fourth of the girt for the side of the square, which you must exactly measure upon your rule, and set down in inches and quarters of an inch, &c."

This, it will be seen, is simply laying down the string measure quarter-girt pure and simple, as the only mode of cubing round timber. It has long been known to practical measures that this common and accepted form of a quarter girt is an error of considerable magnitude; but this belief is hard to imbibe by those who have seen their fathers work upon it, who have seen it accepted as the measure for freightage of ship and sloops and for railway carriage.

Outside the radius of practical measures the belief is deeply rooted in the minds of timber merchants that the quarter-girt string is the only true system of measuring round timber, and it is very doubtful whether we, who are not of this belief, can convert any members of the timber trade to our views.

We propose in a short and concise way to prove by demonstration that the Hoppus system is in error, and to what extent it is so.

To do this we must be set up a correct form of measurement, a rule by which the circle can be squared, and compare the Hoppus measurement with this correct data.

For illustration we will take a tree 20 ft. long and 16 in. diameter. Now if we make a section of this tree on thin cardboard, and divide the line of the circumference into 3 in. or 4 in. spaces, and draw lines from each point to the centre, we shall have a series of wedge like segments. When this is done, take a pair of scissors and cut them all out; next place them all side by side, alternating the broad and pointed ends. This being done we shall find the length equal to half the original circumference of the tree, and the breadth equal to half the diameter, and this to be the true sectional contents of the tree.

A tree 16 in. diameter would girt 50 in. (3 times the diameter and 4 per cent). Now as half the girt and half the diametes is the correct section, this gives 25 in. x 8 in.
= 200 in., contents 27 in. 9½ x 12 cubuc feet.

Now let us see what Hoppns makes of it: girt 50 in. = 12½ x 12½ in., say 13 in. x 12 in. = 156 in., contents 21 8-12 in.

The actual measure is thus 26½ per cent. more than Hoppus's quarter-girt string gives the buyer fully one-fourth of the wood for nothing.

That the principle we here lay down is the true mode of measure of round timber can be proved by a moment's reflection. Viewing the section of the tree the centre is a fixed point here the circumference is nothing. Away on the outside the circumference is 50 in., half (the mean between the centre and the outside) is 25 in., the true circumference, and the width of this circular belt of wood is 8 in. To straighten out this belt of wood you might cut wedge pieces out of the outside 4 in., and insert them in the inside 4 in., when you would have a parallelogram of 25 in. x 8 in. The real truth is that the mean circumference is a fixed datum, and the wood wanted on the inner side of the circle, to make it a straight line, is the equivalent of the superfluity of wood on the outer side of the circle.

This principle can be worked upon in alternative ways:—

1st. The circumference multiplied by one-fourth of the diameter.

2nd. Half the circumference multiplied by half the diameter.

3rd. One-fourth the circumference multiplied by the diameter, *i. e.*, the quarter girt multiplied by the diameter.

All the above three modes give the same result, the exact sectional area of the tree.

You can put it another way, which would be 4 per cent. above the correct measure, viz., the quarter-girt multiplied by one-third the girt, and work it out by Hoppus's tables of unequal-sided timber, or you can add the quarter-girth and the one third girt together, and divide them for the square of the tree, and work it out by Hoppus's tables of solid measure.

Another system is to multiply the diameter by the diameter, and divide by 183. This system brings out an over measure of 27 per cent. upon string measure quarter-girt, which is within half per cent. of the actual result we obtain above; but this principle does not find favor, as the general members of the trade cannot grasp a mode or system by which it can be proved.

One of the most popular modes of testing the string measure quarter girt is that of water. Take two tin vessels, each 12 in. deep and 48 in. girt, the one round and the other square. It will be found that the round one holds fully one fourth more water than the square one, and that the water in the square tin will only fill a round tin 42 5-100 in. in girth.—*Timber Trades Journal.*

### A LEOPARD STORY.

The following is an amusing report from the cashier of the South Indian railway to the chief auditor, *re* a leopard on the line:

"MOST HONORED Sir: In continuation of my telegram of the 13th instant I beg leave to bring to your notice that I had a narrow escape from the attack of a leopard by your favor, and by the grace of the Almighty. A certain leopard—I think a stray one—appeared all on a sudden to our heartrending fear while payment was being made in the 93.9 mile on the line. Mr. Bonjour, the P. W. inspector, was also with me at the time. The coolies numbered about 400. All of us were engaged. Where from and how the above said leopard managed to lie down in a fearful posture within the fencing, at a distance of only ten yards from us. The coolies, one after another, crying 'Tiger! tiger!" took to their heels, while I found picotta standing near a ditch and got up to the top of it to save my life at any risk. Fortunately for me Mr. Lloyd, the assistant engineer, on hearing this, came to the spot with three constables, armed with guns, ready loaded. The constables fired, one after another. In the meantime as a Godsend, a light engine happened to run there. The engineer, detaining the engine, got into the engine and began to shoot therefrom. Aims several times failing the leopard sprang up. Some of the coolies and constables wouuded them by purring them as often. In this state of things my body shook with fear as I was witnessing the trials as well as the fierce action of the leopard. Mr. Lloyd, with the assistance of the constables, had the presence of mind to shoot at it undaunted with a gun brought by them till it was killed. Nearly 300 lives were saved, I being one of them. Now I took heart and came down to commence payment. I herewith send one claw and one whisker of the leopard for inspection. Begging to be excused, I beg to remain, most honored sir, your most obedient servant,—S. Soondrawier, Cashier."—*London Truth.*

### HUNTING GRIZZLY REELFOOT.

A Portland, Ore., correspondent writes:—Four years since a monster grizzly bear commenced depredating the stock ranches, twenty miles south of Ashland. He would descend from the fastnesses of the Rogue River mountains whenever his appetite might prompt him to do so, and perpetrate wholesale slaughter on the horses, sheep and hogs of the ranchmen. During these years the ranchmen have planted half a dozen Winchester balls in his carcass, but still he refused to succumb.

About a year since, the grizzly walked off, leaving a good piece of his foot in a huge trap, cautiously prepared for him in a thicket. Since then he has had a gait peculiarly his own, and the wary huntsmen who have occasionally caught sight of him but could not bring him down, have given him the name of Grizzly Reelfoot.

Last week he ambled down to Howard's station on the Oregon, Idaho and California stage line, and, breaking the back of a 2 year old steer, sat upon him and ate him for lunch. This exasperated more then ever the ranchmen who had on divers occasions been forced to beat hasty retreats when coming unexpectedly upon him. They raised a purse of $150 for the Nimrod who would bring in the grizzly's scalp. Some noted bear hunters, including Jim Wilson, Harry Woodburn, Charley Taylor, and others, with trained dogs, are now in search of him in his mountain resorts. His tracks measure 14 inches each, and when he decends the hills through the underbrush he is said to thrash the ground like a cyclone. His bulk is gigantic. Many aver that he does not weigh an ounce less than a thousand pounds. He is an ugly, vicious brute, and unless the hunters get him, the chances are even that he will get them.

THERE are logs to the amount of 450,000,000 feet, available, in Menominee river at the present time.

Best French Brandy, Smart-weed, Jamaica Ginger, and Camphor Water, as combined in Dr. Pierce's Extract of Smartweed, is the best remedy for colic, diarrhœa, cholera morbus, dysentery or bloody-flux; also, to break up colds fevers and inflammatory attacks if necessary.

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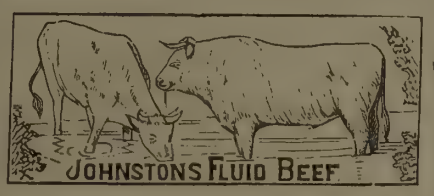


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*PETERBOROUH, Ont., JULY 15, 1885.*


JOHN RIPPER, employed on Gilmour drive, was drowned in Crow River, at Marmora, Hastings Country, on June 27th.

SPRUCE continues to meet with a good demand in New York, and prices have ruled firm although receipts have shown considerable increase.

THE exports of lumber from the port of New York for the week ending June 27th was 1,232,714 feet and of staves 120,286.

IN the suit of John Edward et al. against the Wausau Boom company, tried at Waupaca, Wis., recently, a verdict for plaintiffs of $15,975 was rendered. The suit was brought to recover damages resulting from the retention of logs in the Wausau boom.

THE Lewiston (Me.) Journal notes that all the logs which were hung up in the Penobscot have been started by the rains and consequent rise in the river. The drives will all come down safely.

J. BABCOCK & Co's saw mill at Manistee, Mich., was totally destroyed by fire on the night of July 1. The loss is stated at $45,000; insurance $30,000. The fire caught in the boiler house. The enterprising proprietors have already commenced the work of rebuilding.

JAS. CONMEE has purchased the mills and lumber business of Thomas Marks, at Fort William. It is rumoured that he is also about to secure the mill of the Algoma Lumber Co. situated on the Kaministqiua.

BLACK birch wood is prized in Europe for fine cabinet work. It seems, however, that there is a strong prejudice against black birch among architects in this country, although it is cheap, beautiful and pretty durable. Carpenters find a difficulty in introducing it in finishing of houses. Soon, however, like many other of our long despised though valuable native woods, it will win its way to a very high place in popular estimation.

WM. BALL, employed in Mr. Garnett's mill at Midland, was struck on the head by a heavy piece of plank on July 8th, and rather severely cut.

THE Collinsby Rafting Company despatched their 4th raft from Kingston to Quebec on July 9th in tow of Calvin's steamer Chieftain.

CALVIN & SON'S eighth raft reached Quebec on July 9th, making the run from Kingston in seven days and a few hours. This is excellent time.

THE Minister of Marine and Fisheries has decided to establish six new life saving stations, the life saving corps at each place to consist of a captain and six men. The stations will be located at Cobourg, Toronto, Port Stanley, Quinte Pelle, Goderich and Collingwood.

THAT pegged shoes and boots are still quite extensively used might be inferred from the fact that a peg manufacturing company at Bartlett, New Hampshire, is turning out the little wooden articles at the rate of eighteen hundred bushels per day, and has orders on hand that will require several months to fill.

EXPEPIENCED lumbermen, says an exchange, have always held that lumber cut in the spring was not durable for building purposes. Recent scientific investigations sustain this belief. It is shown that the richer the wood is in phosphoric acid and potassium the more likely it is to rot and mold; wood cut in the spring contains eight times as much of the former and five times as much of the latter as cut in the winter.

THE timber drives on St. John, N. B. waters, says a maratime exchange, are all down with the exception of those on the Aroostook river branch. About 12,000,000 feet of logs ore hopelessly hung up on this river, of which 6,000,000, the cut of Mr. Robert Conners, have not yet left Machias stream where they were cut. Besides Mr, Conners' drive there are two other whole drives included in the remaining 6,000,000.

A REPORT of the Department of Agriculture, says the *Lumber World*, tells us that 26,500 square miles of forests are at present required to furnish the cross ties for the railroads of America. If other branches of the lumbering industry were itemized in a similar manner, as representing a certain number of square miles of forest annually, it would be an exceedingly interesting and perhaps perplexing problem to compute from such figures the actual forest area of the United States and the time necessary before the last tree would be cut down. Perhaps it would be discovered in this way that all the forests had been destroyed long ago.

"THE lumber trade," according to the Chicago *Times*, "has proven singularly disappointing this season to all concerned in it, and vesse men, lumber manufacturers and yard dealers claim unanimously that they have made no money. The receipts for the season so far are enormously behind last year, and the shipments from here are unsatisfactory, the diminished outward movement being partly due to an increasing tendency to ship direct from the mills to the country yards. It appears, however, that lumberman do not lose all faith in the future, and liberal investments in standing lumber are now and then made public."

WE have received a descriptive circular of the saw mill machinery manufactured by the Lane Manufacturing Company, of Montpelier, Vt. It gives a detailed description, illustrated by clear engravings, of the patent lever set, circular saw mills and saw mill set works made by them, showing the advantages of their patents, for which they have recieved numerous medals at exhibitions. They also manufacture planing machines, matching, shingle and lath machines, water wheels, and all kinds of wood-working machinery and appliances needed in saw mills. A descriptive circular and price list will be furnished on application being made to the firm.

THE Bay City *Lumberman's Gazette* publishes a letter writen by Mr. R. W. Phipps to the CANADA LUMBERMAN, and prefaces it with the following remarks regarding the writer:—"R. W. Phipps, of Toronto, Ont., is one of the most persistent workers on the continent in the interest of forestry. In fact our neighbors over the border are especially favored in this direction. Mr. Phipps is to the fore 'in season and out of season,' and never fails to suggest something more than ordinarily sensible when he gives utterance to his ideas."

AT Pembroke recently the foreman of a timber drive on the Petewawa river, was convicted under the Ontario Act for the preservation of the forests from fire, Cap 23, 41, Vic. 1878, with having neglected to provide himself with a copy of the Act, and regularly read and explain it to his men. The provision is to regulate the necessary habit of starting fires for cooking and warming purposes along the rivers and in forests. His neglect cost him $20 and costs. The cook on the same drive was also fined $16 and costs for having failed to properly extinguish the cooking fire when leaving. The heaviest penalty for violation of this act is $50; lumbermen will therefore see the importance of properly posting themselves and their men as to its requirements.—*Montreal Times.*

## WOOD WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the United States patent office, June 30th, 1885, is specially reported by Franklin H. Hough, Solicitor of American and Foreign Patents, 925 Fifth street, N. W., Washington, D. C.

321,336.—Lumber drier—W. B. Beard, Jackson, Mich.

321,348.— Lumber piler—C. E. Dunshee, Chicago, Ill.

321,377.—Planing and matching machine—J. B. Mahaffey, Baltimore, Md.

320,979.—Saw guide—D. Parkhurst, St. Louis, Mo.

321,194.—Saw mill, band—S. Cook, Indianapolis, Ind.

321,195.—Saw mill dog—L. Johnson, Milwaukee, Wis.

321,282.—Saw mill set works—A. Delaney & J. M. Bond, Richmond, Va.

321,376.—Saw swaging and jointing machine—W. Lyon, Burlington, Iowa.

321,192.—Sawing machine, circular—J. Connell, Rochester, N. Y.

## PROMISING OUTLOOK.

"We are going to have an excellent fall trade," said a prominent lumberman a few days since to the writer. "Buyers must come to us during July and August, as soon as the real situation becomes known. The mills will necessarily shut down early, at least a large proportion of them, and the heavy curtailment of the lumber output will have a very important bearing on the demand, which must be more urgent as the season advances; I am entirely satisfied with the outlook, and if manufacturers are true to their own interests, the fall trade will be highly remunerative." A careful review of the situation confirms us in the belief that the opinions expressed as above, by the gentleman alluded to, are fully warranted. The curtailment of the lumber output on the Saginaw river will amount to at least 300,000,000 feet, which cannot fail to very materially affect the urgency of the demand as well as to enhance the firmness in price, if it does not result in an advance on the coarser grades. It is anticipated that the Tittabawassee Boom company will have finished operations by the middle days of August, and when this avenue of the log supply is closed, productions will also have ceased at very many of the mills, especially that portion of them which are dependent on others than the owners for their source of supply. When these conditions are reached, and the real situation becomes fully understood, it is believed by practical, shrewd men, with business foresight, that the anticipations as experienced above will be fully realized. In fact very recent developments seem to warrant the confidence in the near future as indicated.—*Lumberman's Gazette.*

## DEALS.

The following appears in Quebec *Chronicle* of July 3:—Agents from English ports and any others interested in the Lumber trade of Quebec may be glad of an opportunity of seeing one of tne finest consignments of Pine Deals that has come to this port for many years.

There is now discharging at New London Cove part of a special purchase of deals by Messrs. McArthur Bros. from the New mill of Messrs. Flatt & Bradley, at Casselman, on the South Nation River, which for quality, demension, finish and culling cannot be surpassed.

These deals are the first cut of a virgin limit owned by the late Mr. G. Casselman, and in his possession, both land and timber, for the last fifty years.

Messrs. Flatt & Bradley became the purchasers of this property, covered by a dense growth of the finist pine, about a year an a half ago, for upwards of $105,000. They immediately began to erect a first class mill, and this, their first season, they expect to output 12,000,000 feet of lumber.

This lumber, as we learn, is beirg culled through the Supervisor's Office, by Mr. Thomas Malone, jr., and furnished fully 25 per cent of first-class. Mr. Malone is well known both in and outside of Quebec as a careful, painstaking, and clever culler, and it is a matter of surprise to many conversant with the trade that any cut of Pine either in the Dominion or Michigan can be found to average so much of first-class and of such dimensions. Any parties interested in seeing an exceptionally fine lot of Pine Deals might well pay a visit to New London Cove.—*Com.*

## TRADE NOTES.

In its notes on the English timber trade the *Timber Trades Journal* of June 27th says:—Business on the coast is quiet, and few sale cargoes are reported, the activity being chiefly confined to the arrivals, in which the week has been very prolific. In London there is an apparent disposition to secure stock at some reduction on quotations, but this shippers' agents are not able to accept.

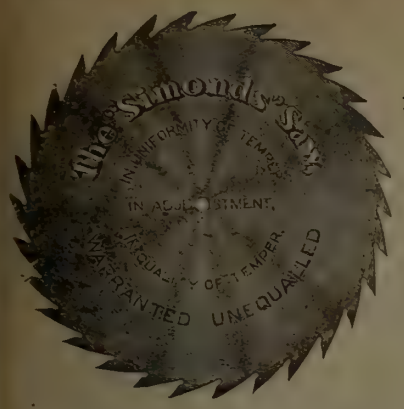
There are very few ready goods now offering in the market, the quotations being mostly for August shipment. It is not often we have seen a duller summer for trade than the present, and the quietness in the building trade is something remarkable. The demand runs on the better class wood, which is due in some measure to the tendency just now to build a superior description of dwellings to those now in use.

Freights remain practically unaltered; plenty of vessels are offering, and the demand is excessively quiet in whatever quarter we look. The present quotations are:—Archangel to London, 40s.; Yarmouth, 40s.; Onega to London, Hull and Grimsby, 50s.; Montreal to Barrow or Fleetweed, 47s. 6d. to 50s.; Sundswall to London, 32s. to 33s. for firewood, which seems a very low quotation. Another is Riga to the Mersey 9s. for sleepers.

The spring fleet from Quebec is putting in an appearance rather sooner than we expected. Although the bulk of what may be called the first open water fleet will not be here till well on into July, an instalment or two in the shape of the early loaded ships are already coming to port, and we have to record four fully laden vessels from Quebec, now in the docks. Of these two are steamers, viz., the Glenmorven and the Suffolk, with cargoes for Messrs. Bryant, Powis & Bryant, the former bringing 1st, 2nd and 3rd bright, with a few red pine, the latter cargo being made up of 1st and 3rd bright. The other two are the Rota and our old friend the Hovding, for Messrs. Brownsing Castle & Co., both these latter bringing complete cargoes of 3rd quality bright pine of the regular sizes 12 ft. 3x11, and which, we understand, are 1883 cut deals, in prime condition. The Hovding entered the river on the 23rd, having made a very quick passage, as did also the Rota, being somewhere about 23 days from land to land. In addition to these, we have to report the arrival of a vessel from the spruce ports, the Regina, from St. John, with a cargo of the usual unassorted quality.

The Quebec arrivals are early considering the immense quantities of ice and the unprecedentedly severe winter experienced in Canada.

# ST. CATHARINES SAW WORKS!



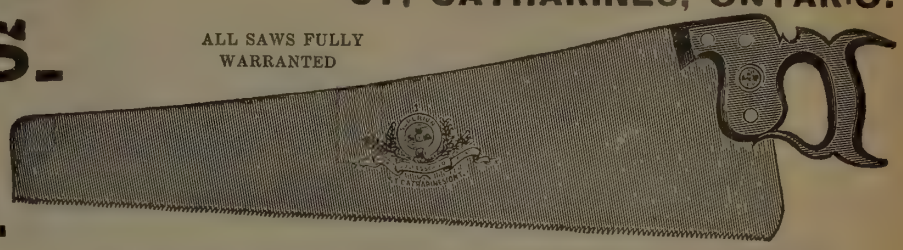

## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

**SAWS.**

ST. CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

**"SIMONDS" SAWS.**

☞*All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*


Some years ago, when the winter in Quebec was unusually mild, a vessel loaded in April arrived in the docks here early in June, but the beginning of July is about the average time of the pine arrivals.

The cargoes alluded to come at a very opportune time, the present London stocks of yellow pine being lower than ever known. The dock stocks at present consist of first and a few of fourth quality, but at the mills we understand, there is a considerable quantity of 3rds, as well as some of the next lower descriptions. The dock charges are said to be the reason that the lower qualities of pine are held at the mills instead of at the Surrey side of the river. With regard to the high priced goods it is not so material, as these latter can better bear the additional expense entailed by being stored at the docks.

### Leather Belt Cement.

An ordinary cement for this purposei s wheat flour boiled in oil of turpentine; but the ends must be secured by rivets or it is not reliable. A better cement is made by soaking six ounces best glue in one pint of ale, then boil, add one and a half ounces of boiled linseed oil and stir well. Another prescription is to take dissolved glue in the form as the cabinetmakers use it, and add tannic acid till creamy and ropy. Make the leather surfaces to be united rough, apply the cement hot, let it cool and dry under pressure, and it will not need riveting. For rubber belting take pure rubber in thin slices, two ounces, dissolve in one pound of bisulphide of carbon. This is a good cement, but if kept thickens very soon. In order to prevent this add a solution of pure rubber, resin, and turpentine.

### HOW TO RECOGNIZE GOOD TIMBER.

It may be interesting to your readers, says D. G. Loudon, to the *Journal of Progress*, to know that the microscope is of great value in testing the qualities of wood. It is stated that if the microscope condemns the sample futher delay in testing is not necessary. The larger the specimens to be tested the greater will be the gain the microscope will effect in avoiding the cost of further proof. Samples and microphotographs of bridge timbers which have proved faulty, but which a preliminary examination with the microscope would have thrown out, have been exhibited in America. The timber from which these specimens was taken was a fragment from a railway bridge wrecked in 1879. The timber was so excessfully poor, that on mounting a a specimen on the plate of the microscope, its weak and porus nature was at once apparent. The annualur rings appeared about three times as far apart as they would be in good wood of a similar kind. The medullary rays were few in number and short in length, whilst in good wood they are of considerable length, and so numerous that tangential sections present the appearance of a series of tubes seen endwise on a number of parallel chains. After one seeing and comparing samples of good and bad wood, it is easy to recognize the difference with a pocket magnifying glass. The trunks and limbs of exogenous tress, as it if well known, are built up of concentric rings or layers of woody fibre which are held together by radial plates acting like tree nails on a boats side. The rings, representing successive years' growth, are composed of tubes, the interstices of which are filled with cellulose. The slower the growth of the tree, the thinner these yearly rings and the denser and harder the wood, other things being equal. Not only is the closeness of texture and indication of the hardness and strength of the timber, but the size, frequency, and distribution of the radial plates which bind the annual layers together may be taken as a very close illustration or sign of the character of the wood and its ability to resist strains, especially a breaking stress. The micro photographs of good and bad timber show that in the strong kinds the concentric layers are close in texture, narrow in width and the radial plates numerous, wide, long, and stout, while in poor stuff the opposite characteristics prevail. The practical application consists in having such enlarged photographic sections lungitudinal and transverse of standard pieces of timber bearing a certain known maximum or minimum strain, and rejecting any piece which the assissted eye detects to have fewer rings per inch of diameter, fewer fibres, or fewer radial plates per square inch of section, or to use such pieces with a greater factor of safety. The advantage of the method is that it allows allows all timber for important positions to be tested before being used.


# TIMBER LIMITS
## WANTED

*On the North Shore of Lake Superior or Georgian Bay.*

Send particulars to

THOS. McCRAKEN,
Lumber and Commission Merchant,
2 Court St., Toronto.

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## WANTED.

A PRACTICAL MAN to manage a Sash, Door, and Blind Manufactory, which has a Planing Mill and Box Department connected, in all giving employment to 100 men, located at Syracuse, New York, U. S. A. Persons applying must be conversant with all details and thoroughly capable. For further information address,

CRANE, BELDEN & CO.
Syracuse, New York.

2L14


### Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and boweis, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

"That Miss Jones is a nice-looking girl, isn t she?"

"Yes, and she'd be the belle of the town if it wasn't for one thing."

"What's that?"

"She has catarrh so bad that it is unpleasant to be near her. She has tried a dozen things and nothing helps her. I am sorry, for I like her, but that doesn't make it any less disagreeable for one to be around her."

Now if she had used Dr. Sage's Catarrh Remedy, there would have been nothing of the kind said, for it will cure catarrh every time.


A FULL LINE of all Sizes Single and Double Belting constantly in stock.

☞All ORDERS Filled same day as received.

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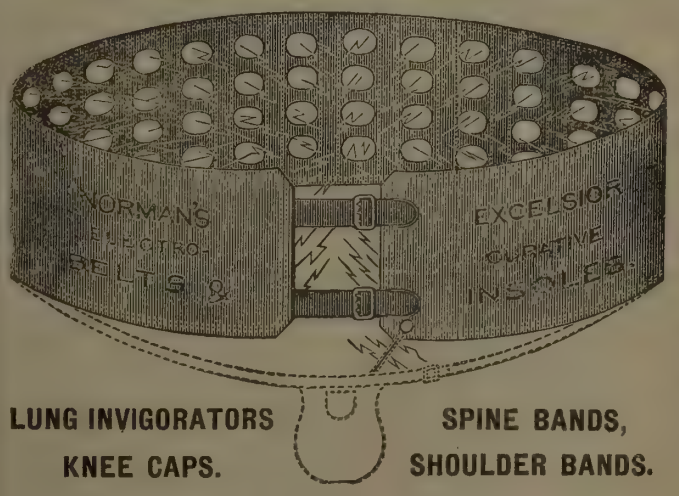
*Factory and Warerooms:—2518, 2520 and 2522, Notre Dame Street.*

# MONTREAL, QUE.

# Norman's Electro-Curative Belt!

*4 QUEEN ST., EAST, TORONTO.*




This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

LUNG INVIGORATORS
KNEE CAPS.
SPINE BANDS,
SHOULDER BANDS.

## A. NORMAN, Medical Electrician

4 QUEEN STREET EAST, TORONTO.

*N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination.*

## THE DESTRUCTION OF FORESTS.

We clip from the *American*, of Nashville, the following article on the destruction of our forests and the climatic changes sure to result therefrom :—

"The rapid destruction of forests in the United States is a fruitful source of disquietude to the far seeing statesman, as well as to the man of science. That forests exert a controlling influence on climate is a fact too well known to admit of controversy, and it is quite possible that many of the countries of the old world that were once the theatres of busy life have been rendered almost uninhabitable by the destruction of the forests.

"Historians tell us that the land of Canaan, in the reign of David, supported probably a population of 5,000,000. Now we know that the extent of territory comprised in Palistine never exceeded at any one time more than 12,000 square miles, so that it must have supported a population of more than 400 to the square mile, which is twice as great as the most densely populated state in America. Nothing can give us a better idea of the original fertility of soil than the fact that this numerous population derived its support almost exclusively from agriculture. Ships were occasionally sent to Ophir and to Tyre on trading expeditions, but there was no commerce in the modern sense of the term, and no manufactures. A few plain artizans plying their vocations for a pittance a day, and a few sailers were almost the sum total abstracted from agricultural industry. The population of that country, once so great, does not exceed at this time 300,000, or not one-tenth what it was in ancient times. Now, the severity and injustice of the government, together with the many disastrous wars through which the people have passed, doubtless has done much to reduce the population from what it was in the glorious days of the poet king to what it is to-day.

"But there is a more potent cause. The climatic changes induced by the almost total destruction of the forests have rendered all the hill country unproductive. There are no forests now in Palestine. Nothing but shrubs and fruit trees are to be seen. Even the far-famed cedars of Lebanon have almost disappeared. Only a few here and there may be observed standing as monuments of their former glory. The hills of Judea, that once wore a perennial verdure, are now masses of barren rock, and the brooks, famous in scripture and in song, are now nothing more than wet-weather branches. The source of all fertility has been destroyed by annihilating all the agencies for cooling and condensing the vapor which ascends from the ocean. Droughts are now the general rule, not the exception. When rains have once begun, however, they continue. The same causes which produce dry weather operate to prolong the rains when they once begin. Had the slopes and hills been kept in forests the population would never have been reduced from 5,000,000 to 300,000. Bayard Taylor, in one of his works, speaks of large regions on the Nile that once supported a dense population that are now entirely barren, and throughout the wide expanse scarcely a tree can be seen.

"The people of the United States may be repeating the history of the ancient Egyptians, and drifting on the same road to destruction. In 1880 there were 25,708 lumbering establishments in the country, employing $181,000,000 capital and 146,000 hands, distributing $31,845,000 a year in wages, using $146,000,000 worth of material, and turning out an annual product of $233,000,000. Add to this enormous amount of timber cut the millions of acres destroyed by fire, and it will give some idea of the immensity of our forests, and the rapidity with which they are disappearing. There are but few great resources of timber left while the demand for it is increasing yearly. Congress passed an act in 1817 for the preservation of live oak and cedar for naval purposes on all the public lands. The Supreme Court, in the case of United States vs. Briggs, S. Howard, construed the statute as authorizing the protection of timber on all public lands. More recently laws have been passed by many of the Western States encouraging the planting and raising of forests and the general government has offered bounties in the way of land for planting trees. The arbor days are generally observed, and millions of trees are annually set out, but all this falls short of repairing the enormous waste now going on. It is estimated that 10,000,000 acres of forest are annually destroyed, while it would be difficult to show that one-tenth of that area is yearly planted in trees. In England, where the laws of primogeniture are in force, th protection of trees on an estate is considered a filial duty. The landed estates, held for the most part by the nobility, are prized more than any other specie of property, and the destruction of forests is less necessary on account of the cheapness of coal. The Duke of Norfolk has a park that is 15 miles in circuit, and the Marquis of Bradalbane can ride a hundred miles in a straight line through his park and arable lands. Tenants often live to an old age on these estates without ever having seen a tree felled. More timber is destroyed in the United States in one year than in England in a century.

"For Tennessee some provision should be made to protect our timber, or at least some encouragement given to plant trees. Our old fields that lie grim and fallow, like samples of a ruined world, could be reclaimed by planting them in trees, and if no other good should be accomplished the landscape would be beautified, the broom grass exterminated and the gullies checked.—*Southern Lumberman.*"

## ABOLISHING THE ALPHABET.

A reporter of the Pittsburg *Times* tells of an interview he had with a young man now engaged in making a living by selling liquid blue, as follows :

"By trade," he said, "I am a type setter, and I have been working about eight years on a system of shorthand type that I have about perfected. It is designed to take the place entirely of Roman latters now in use in writing and printing. By its use matters can be put in about one fourth the space it now occupies. Signs representing sounds, you understand, will take the place of letters."

"That a big scheme.'

"Yes ; but perfectly feasible—quite as feasible as the present system of letters and spelling was with its inventor. By this system every language can be written with the same signs—a universal written language. I have some 350 signs, all very simple and not one as complicated as the present lower case 'g.' As printed every type forms two signs—by being reversed—some our, and in type above pica in size they will form eight and sixteen, as they can be made octagon in shape in the body, and, according as they are set in the form, represent different sounds. I studied three different systems of shorthand in search of one that would answer my purpose, but none did so fully. Scovel's came nearer than the others, but I had to supply a great many of the signs by my own invention to hit the peculiar purpose.

"There are five sounds in the German language that differ from the English. I am familiar with German, French and Spanish and know some little of Polish, and I think the same symbols as used in the English will supply written signs for them all, though that is really unimportant, as it will not be above a century before the English will be the universal language. The Chinese is now, in point of territory covered, the most prevalent language, the Spanish next, and English third, but the progress of the last hundred years has been marked in favor of the latter."

"You have scarcely the place here to carry on scientific studies," said the *Times* man with a glance about the room.

"A little crowded" said the inventor, "but when a man has it in his head his surroundings don't much matter. I haven't the money to buy the books I would like to have, but I frequent the Y. M. C. A. library and I have friends to loan me what they have. I have received much encouragement from several gentlemen to whom I have explained my ideas, and think I can secure all the financial assistance I may need."

"Is there no balm of Gilead ?
Is there no physican there ?"
Thanks to Dr. Pierce, there is a *balm* in his "Golden Medical Discovery"—a "balm for every wound " to health, from colds, coughs, consumption, bronchitis, and all chronic, blood, lung and liver affections. Of druggists.

## HOW BRUIN HUGGED A BUSY SAW.

"Talking abut funny things," said a big, bronzed beared man in the reading room of an uptown hotel last night, "the funniest thing I ever heard of happened in my saw mill out in Michigan. We used a heavy upright saw for sawing heavy timber. One day not long ago the men had all gone to dinner, leaving the saw which ran by water power, going at full speed. While were away a big black bear came into the mill and went nosing around. The saw caught his fur and twitched him a little. Bruin didn't like this for a cent, so he turned around and fetched the saw a lick with his paw. Result a badly cut paw. A blow with the other paw followed, and it was also cut. The bear was by this time aroused to perfect fury, and rushing at the saw, caught it in his grasp and gave a tremendous hug. It was his last hug, and we lived on bear steak for a week. When we came up from dinner there was half a bear on each side of the saw, which was going ahead as nicely as though it had never seen a bear. This is a fact, so help me Bob," and the big lumberman bit off a fresh chew of tobacco.—*N. Y. Tribune.*

## CANADIAN PACIFIC.

The political and commercial value of the Canadian Pacific railway, when completed, will be incalculable. Among its more preceptible political results will be the strengthening and hastening of the operations of the army and auxiliary forces in Canada, Australia, India and the eastern colonies, and of the navy on the Pacific, Austrailian, Indian and China stations. It will also facilitate the quelling of disturbances in the vast Dominion through which the line passes. The length of the railway is 2,870 miles. It runs through British territory, and will be in communication with the eastern provincial railway system of Canada. Ninety-five days were required to move the men from Toronto to Winnipeg, about the centre of the Dominion, in 1870, to suppress the Red River rebellion. In the spring 1886 the "Canadian Pacific Express" will run from Montreal to Vancouver or Burrard Inlet in ninety hours, and passengers and mails from England will be able to reach the Pacific by this route in thirteen or fourteen days. Troops, stores, boats and crews can also be conveyed from Halifax to that ocean in five days, without proceeding through foreign possessions. British Columbia and Vancouver Island, which have hitherto been in a very defenceless condition, will now have the advantage of speedy and material reinforcements for their protection, and in order to enable the navy to work on the Pacific station, the company contemplate a line to some port of Nova Scotia or of Cape Breton, whereby the passage between England and Vancouver will be reduced to about eleven days, except for troops and warlike stores, which will take a day more, on account of the circuitous line of the Intercolonial railway. Every facility will be granted for the carriage of troops, crews and war stores. These men will be provided with emigrant carriages, wherein comfortable seat beds will be available. The company propose to run steamers between Port Moody, the Pacific terminus of their railway, and Japan and China, and another branch between that port and New Zealand and Australia. Passengers will be able to arrive in Japan in thirty days and Hong Kong in thirty-six days. If reinforcements are urgently required by India, they will reach Calcutta or Madras more quickly from Halifax than from this country, if they could not proceed by the Suez canal. Again, as Halifax is much nearer England than New York, even if the steamers of the Canada Pacific Railway Company do not go at a greater speed than those of the Pacific Mail Steamship Company, passengers to New Zealand and Australia from United Kingdom ports will be able to reach the Antipodes, via Port Moody, sooner than by the San Francisco route. In many other respects this line will be of immeasurable advantage in war with a maritime nation, especially for the supply of provisions to the home population, and will greatly enhance the prosperity of the Dominion.—*Army and Navy Gazette.*

Subscribe for the CANADA LUMBERMAN.

## THE BEST FOUNDATION FOR WOOD PAVING.

Sir Robert Rawlinson, C. B., writes to a contemporary :—"Your remarks on the rough surface state of the wood pavement in Regent Street deserve special notice. I alter slightly a paragraph in your short notice of the uneven wear of the blocks into a question which I venture to answer : 'Is there no better system than this for the preservation of a firm and homogeneous bed for the wood flocks?' My reply is, 'Yes, there is.' The prime necessity for any form of road is an absolute sound foundation, fully drained. For streets the best material for the foundation will be a layer of lias-lime or Portland cement concrete, not less than 6 in. in thickness in ordinary streets, 9 in. in such as Regent Street ; this concrete to be 1 to 5, and, after being laid, to have no less than one week allowed to set. Portland cement concrete should be well sprinkled over with water each day. Portland cement sets better wet than dry. Concrete blocks may even be sunk in still water with advantage to the setting property of the best cement. The surface of the concrete must have the true contour of the street, and must be absolutely true and smooth, finished with a thin coat of lime or cement mortar, 1 to 2 of clean sharp sand. On a foundation so prepared the blocks should be laid not more than ¼ in. apart, to be run full of hot asphalte. Anson's patent, or bottom layer of thick felt and jointing with similar felt, makes one of the best wood pavements, adding about 2s. per square yard to the cost. An example of the wood pavement laid on a sound Portland cement concrete asphalte jointed may be seen in Parliament Street, Westminster and at Whitehall. The failures in wood pavements in London streets—and there have been and are now many such—are a result of defective foundations. These have either been to weak or improperly made, hence their quick destruction. Street surfaces and substances are subjected much more to ramming than to wear by friction. All quick traffic results in the wheels, being rammers, jumping—and this in proportion to the roughness of the surface and the velocity of the waggon, omnibus, cap, or carriage. A light quick traffic punishes any road more than a slow and a heavy traffic ; but a quick heavy spring van traffic punishes any road or street most. A sound foundation is the true road ; the blocks of wood are surface veneering, to be renewed when fairly worn."

## PERILS OF RAFTING.

A mishap, which very nearly resulted in a drowning accident, occurred to a raft of timber this morning while making the decent of the Lachine Rapids. About nine o'clock twelve large cribs of oak and pine, which comprised a raft belonging to Messrs. D. D. Calvin & Son, of Garden Island, were proceeding down the Rapids when, owing to the sudden veering of the wind, they were thrown close upon one another. Five of the cribs broke up in the Rapids and two more struck on pier No. 12 of the Victoria Bridge, loosening their fastenings.

On one of the latter cribs an Indian, whose name could not be ascertained, was thrown into the water, and for some minutes was in a perilous position. There was no pieces of timber within twenty or thirty feet of him, and the nearest pieces were drifting faster than he could swim. After buffeting the water, which was very rough, for a considerable period, he was picked up by Messrs. Joseph Vincent and James McGurk, who had put off from shore in a small sail boat, on witnessing the accident.

There were twenty-three men on the cribs, and some of the escapes were marvellous. None of the men got in the water in the Rapids break up. This is the first of the season's rafting casualties, and was due largely to a sudden change of wind which verred in a few minutes from the south to a strong north-easterly gale.—*Montreal Witness, June 22.*

THE Oconto company is daily piling about 350,000 feet of lumber cut at its two mills at Oconto and Nahma, Wis. This includes 60,000 feet of deal daily for the English market. The firm has sold 3,000,000 feet of deal for future delivery at Quebec.

# Chips.

H. STEVENS & Co., Fairfield, Me., lost 100,000 feet of timber last week, by the breaking of a boom.

AN insect, known as the elm tree beetle, is causing widespread destruction to the elm trees in the eastern states.

THE saw mills of Louis Gendreau, located at St. George's, Beauce, Que., was totally destroyed bp fire June 18.

SEVEN men were drowned while endeavoring to remove a key log which had caused a jam in a drive on the Mattawa river.

IT is stated that $6,000,000 was represented at the late meeting of the Menominee River Manufacturing (boom) Company.

EXTENSIVE forest fires have been raging near Big Lake, not far from Calais, Me. A large force turned out to fight the flames, and at last reports had them under control.

A PARTY of Chicago capitalists were lately at East Jordan, Mich., looking up hardwood land. They propose to buy a large tract, erect mills and build nine miles of logging railroad.

THE lumber inspectors of Ludington, Mich., report the quantity measured to date, to be less than half that of the corresponding time last year.

THERE is a black walnut tree on D. Olmsteads piace in Shabbona Grove, De Kalb county, Ill., which measures 16 feet in circumference, and is without a limb to the height of 60 feet.

IN a recent trial, a cedar log 20 feet long was taken to California match factory and in 30 minutes was sawed, split, glued, dipped in sulphur, labeled and the matches boxed ready for shipment.

A CURRENT item states that the redwood posts of a fence erected in Napa, Cal., 32 years ago were recently removed and found in as good condition as when first put into the ground.

ON June 30th fire wiped out 800,000 feet of lumber belonging to Thompson Smith's Sons, Duncan City, near Cheboygan. It was valued at about $10,000, covered by insurance.

FOREST fires have lately burned over several thousands of acres in the southern part of Wilson, and the northern part of Ossineke townships, Alpena county, Mich. in some cases clearing the land bare of timber, so that it is said that two men can clear an acre a day.

A CHICAGO despatch says: The Grand Trunk railway is perfecting arrangements for the construction of a tunnel under the St. Clair river between Port Huron and Sarnia, to connect the Chicago and Grand Trunk with the Great Western division. This will give the Grand Trunk an all rail line from Chicago to Niagara Falls and Buffalo.

## THE CONDITION OF THE SPRUCE BUSINESS.

The spruce manufacturers in the eastern states are from all accounts on the tip toe of expectation. For several years there has been a surplus of logs, and with the demand in all the markets steadily declining, the result has been to gradually increase the supply of manufactured lumber, and the buyers have had it very much their own way in the making of prices. But just now the tables seem to have been turned, and the manufacturers evidently intend to improve the opportunity, and regain, as much as possible, the opportunities which have been lost. Nature seems to have come to the rescue, and by withholding the usual spring rains the streams have not risen sufficiently to float the logs, and many mills now find themselves without a stock of timber to keep the saws going. In the various eastern markets there is a steady demand for spruce dimension stock, and with the present outlook it is impossible for the supply to meet this demand through the season. Already there are mills shut down for want of logs, and others are refusing to sell their lumber, unless special inducements are offered. Values are firm and it would seem must show an advance in the near future.

The position of the spruce manufacturer is what might be termed governing; that is, by force of circumstances, they are in a position to govern the sale and value of the manufactured lumber. The demand is good and the supply seems to be in doubt, at least sufficiently so to cause the market to react in their favor. It remains to be seen if the manufacturers will in the future, profit by the lesson of the present season, or whether they will, as in many previous seasons, pay no attention whatever to the prospective demand, but allow their gangs to cut all the logs possible regardless of consequences.

The spruce manufacturers association in the East has heretofore taken much pains in an attempt to regulate prices, but the effort was unsucceesful, as has generally been the case with other combinations. The trouble all arose from the fact that regulating always began at the wrong end, and if the members of the association had from the outset bound themselves not to cut over and above a certain amount of logs the product would have been on a level with the demand, and prices would in a manner have regulated themselves. But under the past method the manufacturers have found themselves largely overstocked, and have made desperate efforts to dispose of certain amounts in the distributing markets, and the result of such efforts has brought about a state of trade the evil effects of which can be overcome in no other way than by an actual shortage in the supply. This much has been accomplished, and the spruce manufacturer is at present on the highway to success, with everything in his favor provided he does not again adopt the methods of the past, and place the business in position where it will be at the mercy of the consumer. —*Northwestern Lumberman.*


**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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L7

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

JULY 9.—Business is completely flattened out here by reason of the strike mentioned in my last letter. Masters and men seem equally determined not to give in. The course taken by the brick layers in siding with the laborers is strongly condemned by most people. Certain it is the effects of the strike are most disastrous to nearly all branches of trade. Carpenters by the score are walking the streets looking for work, and buildings partially built are entirely deserted, and retail lumber dealers with men and horses standing idle. Such a state of things is most deplorable, just in the midst of what promised to be a prosperous season. Wholesale dealers are bringing but little lumber to market, and most of that arriving has to be piled off by the side of the track, and nothing worth mentioning going over the docks, so that as a whole the present outlook is a dark one. In any event the season's work will be shortened and many contracts kept back entirely for this year. We can, however, only await the course of events and make the best we can out of our present surroundings.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 14 00 |
| Scantling and joist, up to 16 ft | 13 50 |
| " " " 18 ft | 14 50 |
| " " " 20 ft | 15 50 |
| " " " 22 ft | 16 50 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 24 00 |
| " boards " | 20 00 |
| ound dressing stocks | 18 00 |
| Picks Am. inspection | 28 00@30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

| B. M. | |
|---|---|
| 1½-inch flooring, dressed | 30 00 |
| 1½ " " rough | 16 00 |
| 1¼ " " dressed | 25 00 |
| 1¼ " " undressed | 15 00@15 00 |
| 1 " " dressed | 22 00 |
| 1 " " undressed | 16 00 |
| ⅜ Beaded Sheeting, dressed | 22 50 |
| Clapboarding, dressed | 14 00 |
| XXX sawn shingles, ℔ M | 2 90 |
| Sawn Lath | 2 75 |

## MONTREAL.

*From Our Own Correspondent.*

JULY 8.—This being the season when trade is very dull we have nothing to report which calls for any change in prices. The distribution is fair for the season, but there is no appearance of much activity till the autumn demand sets in. We still quote ex yard as follows:—

| | |
|---|---|
| Pine, 1st quality, ℔ M | $35 00@40 00 |
| P ne, 2nd " ℔ M | 22 00@24 00 |
| Pine, shipping culls, ℔ M | 14 00@16 00 |
| Pine, 4th quality deals, ℔ M | 10 00@12 00 |
| Pine, mill culls, ℔ M | 7 00@ 9 00 |
| Spruce, ℔ M | 10 00@13 00 |
| Hemlock, ℔ M | 9 00@10 00 |
| Ash, run of log culls out, ℔ M | 20 00@25 00 |
| Bass, " " ℔ M | 12 00@18 00 |
| Oak, ℔ M | 40 00@50 00 |
| Walnut ℔ M | 60 00 100 00 |
| Cherry, ℔ M | 60 00@80 00 |
| Butternut, ℔ M | 25 00@35 00 |
| Birch, ℔ M | 20 00@25 00 |
| Hard Maple, ℔ M | 25 00@35 00 |
| Lath, ℔ M | 1 60@ 0 00 |
| Shingles, 1st, ℔ M | 3 00@ 0 00 |
| Shingles, 2nd, ℔ M | 2 50@ 0 00 |

SHIPPING.

There is a better supply of vessels at present in port than for some time past, but most of them have been already taken up at rates which have prevailed for sometime. Shipments have not been heavy as will be seen from the following list, viz: Par BK Kate Harding, for Buenos Ayres, 505,647 feet lumber and 21,499 pickets; SS Brooklyn, for Liverpool, 8,571 boards and 6,385 deals; SS Nipigeon, for Liverpool, 2,055 deals and 1,059 boards; SS Finsburg, for London, 30,099 deals and 1,692 ends; SS Cathegenian, for Glasgow, 4,720 deals; SS Parisian, for Liverpool, 9,424 deals; BK Peacemaker, for Buenos Ayres, 604,703 feet lumber; SS Quebec for Liverpool, 17,513 pcs. deals and 6,221 boards; SS Lake Huron, for Liverpool, 4,805 deals; Brighton Echo, for Glocester, 10,743 deals and 1,090 ends; SS Titania, for Glasgow, 4,319 deals and 1,700 ends; SS Polynesian, for Liverpool, 3,189 deals and 82 packages of shingles; BK Hamingia, for Buenos Ayers, 432,278 feet lumber; SS Sarnia, for Liverpool, 13,456 deals and 19,936 boards; SS Ontario, for Liverpool, 2,405 deals; SS Lake Winnipeg, for Liverpool, 4,024 deals and 551 ends; BK Ostrooc, for Buenos Ayres, 446,931 feet lumber; BK Royal Arab, for Rosario, 284,186 feet lumber.

CORDWOOD.

There is very little demand and stocks are heavy. We hear that there is likely to be a break in prices, and sales rather under our figures for maple have been made. The prospects are for a downward tendency in the market. Prices for good long wood ex cartage at the wharves are as follows:—

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No particular change in prices. The stocks here are very large and assortments good, but the market is very dull, and trade does not mprove as much as was anticipated.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| Cedar | 2 75@ 3 20 |
| Lath, No 1 | 1 75@ 1 90 |
| No 2 | 1 00@ 1 25 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ℔ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1½-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ⅝ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ⅝-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅝-inch | 28 00@30 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ℔ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## BOSTON.

CANADA PINE.

| | |
|---|---|
| Selects, Dressed | $48 00@50 00 |
| Shelving, Dressed, 1sts | 40 00@42 00 |
| " " 2nds | 33 00@35 00 |
| Dressed Shippers | 27 00@29 00 |
| Dressed Box | 18 00@20 00 |
| Sheathing, 1st quality | 42 00@45 00 |
| " 2nd " | 34 00@35 00 |

## QUEBEC.

The *Chronicle* says:—This market is not very brisk, but holders are firm, especially those owning choice White Pine Stocks in port and to come forward being extremely moderate, both as regards square and Waney. Some drams of Waney of about 20 inch have been placed at 35 to 36 cents, with timber a year older at 33½ ceut for about 19 inch. Other sales are reported but without reliable quotations.

OAK is a fair demand.

DEALS—Third Pine Deals, all regulars, have been sold ex barge at $46,50, and with 25 per cent of oddments, at $42,00 ex barge here.

SPRUCE DEALS.—No sales since last report. The recent rains have done considerable damage to the dams and booms on the rivers around Quebec, which will retard the sawing considerably, besides which a large number of logs have been lost. The damage is no quite over yet. The summer floods have been the most serious within memory.

## TYNE.

The *Timber Trades Journal* of July 27th says: The list of imports of the past seven days has been the smallest we have had to chronicle for some time, consisting as it does of only eight cargoes, two of which are only parts of steamer cargoes, and none of them appear to call for any special comment. One cargo of staves is reported from Bjorneborg to add to the already lengthy list of stave cargoes this season, the great bulk of which appear still to be held in stock. Trade matters remain generally in much the same quiet condition; the demand for all goods is very feeble, and stocks are very much higher than at any earlier period of the year. Prices may be said to be stationary; the little fillip given by the war scare having been dissipated, they are back again to old limits.

Some sensation is being caused in circles affected by the trade to the Midlands, through the action of Messrs. Wilson & Son and the Railway Commissioners with regard to Hull rates. A very powerful opposition is being organized, but generally it will not materially affect many timber merchants on the Tyne Most of the merchants whose business lies in the Midland district have recently diverted their importations from Tyne and Wear to West Hartlepool, and it is from than port, therefore, that so far as the timber trade is concerned, the greatest opposition will be manifested.

## LIVERPOOL.

The *Timber Trades Journal* of June 27th says:—The arrivals of vessels with cargoes of wood goods have more numerous during the past few days, and the dock quays are beginning to be fairly well occupied.

The St. John, N. B., cargoes of spruce are already disposed of, being importations already sold on contract, and which will, doubtless, go direct into the hands of consumers or dealers in the country. Hewn pitch pine timber, however, comes forward in quantities far beyond the wants of the trade, and has either to be sacrificed at sales by public auction or go into store to swell an already excessive stock.

Importers are, however, unwilling to resort to the latter course in the face of the heavy stock on hand, and appear to think it prudent to sell at best possible prices rather than store, as being the better of two evils.

A requistion for 28,000 cubic feet of this timber has been issued by the brokers for the Mersey Docks and Harbour Boark, and no doubt there will be keen competition for the various sections of it. In going in for this order, at present there is little room for doubt that the board are acting wisely, as they have the pick of a full market at prices unprecedentedly low. Under ordinary circumstances this would give the market a flirt upwards, but in its present condition its effects will not be visible either as influencing the stock or advancing prices, though it will be productive of some keen competition, and will in all probability be taken at low prices.

LIVERPOOL TIMBER SALES.

On Wednesday the 24th inst., Messrs. Price & Pierce, offered by auction the cargo of hewn pitch pine timber now landing ex Amanda, from Pensacola, and though the cargo was of large size, being an average of 120 feet per log by 18 in. average square, only four lots found buyers. These realized:—

| | | | | | | | Per ft. |
|---|---|---|---|---|---|---|---|
| 16 | logs | 24 to 53 ft. | long | 21 to 23 in. | deep | 16¾d. |
| 17 | " | 30 " 50 | " | 20 " 21 | " | 15¾d. |
| 16 | " | 26 " 59 | " | 20 | " | 14¾d. |
| 23 | " | 32 " 49 | " | 19 " 20 | " | 14½d. |

Although there were some offers for various other lots, they did not come to the broker's limits, and consequently the remainder of the cargo was withdrawn.

Considerable importations of oak waggon scantling from the United States still continue to be a marked feature in the trade, and are selling at very low prices when compared with the cost of monufacturing them from the log. This should assist the railway and waggon companies greatly in the cost of restoration or reconstruction of their rolling stock.

In regard to the Manchester Ship Canal Bill, an arrangement has been come to by both sides to shorten the evidence. On Thursday afternoon the chairman of the committee, Mr. Forster, announced that they would have to lose one of their members, Mr. Dalrymple, who had accepted office under the Crown as member of Lord Salisbury's Government. Precedents had been looked into, and the conclusion was they would ask leave of the House to sit with three members. The leaders on both sides concurring, Mr. Forster accordingly asked the Government for its sanction to the arrangement, which has been given.

## LONDON.

The *Timber Trades Journal* of June 27th says:—At Messrs. Churchill & Sims's sale on Wednesday the heavy parcel of timber put on the market had a rather depressing influence on prices, and values were badly sustained. The timber was much of it undersized, or else short lengths, in addition to being not generally the most saleable sizes; nevertheless the figures obtained for a great deal of it reads ridiculously low.

There was a thin muster of buyers for the timber lots offered, and though bidding was brisk it failed to carry prices up and these latter fell very flat. Good middling timber of full average, however, went from 60s. to 65s., which was not so badly done by, but there were not many lots fetched these prices. The crown Danzig offered was mostly undersized, and these went under 50s. A few of the longer lengths went up to 62s. 6d., but the bulk went between 50s. and 55s.

What timber is required is mostly long lengths; hence we must expect to see prices for other sorts low by comparison. At all times sluggish for wood of this description, the demand was quite unable to bear the strain put upon it by such a heavy unreserved sale as that of Wednesday. The little parcel of 2nd Memel ex Calypso, regular sized timber, went decidedly cheap at 47s. 6d, and the pitch pine ex Nordens Dronning, from Mobile, at 52s. 6d. to 55s., was also a great bargain to the purchaser. There was a small parcel of red pine timber ex Vendome, the selling value of which was fully illustrative of the feeble demand there is for wood of this description.

The Quebec yellow pine timber ex Ast ea at 62s. 6d. was cheap, and another instance of sacrificing the first cost was some waney board timber, which was allowed to go at 47s. 6d.

Prices on Thursday at the "Baltic" were a reflection of those of the day before, and bargains appeared to be the order of the day. The proceedings were very slow and it was at best a tedious process trying to get bidders to advance on their first offers. There was a large muster of small buyers present, the great variety of the little odd parcels submitted being the chief attraction to dealers of this class. Much of these clearing lots were old stuff amongst which it would have been difficult to find a really sound deal, hence the prices obtained for such descriptions we consider were capital ones and fully represented their value.

The bright pine 12 to 14 in. ex Escalona, from Quebec, at £25 15s. and £25 10s. reads low, but the dulness of trade is such that the market cannot afford the big figures of a month or two ago; at least, those who buy speculatively are not inclined to do so at top figures, and as the major portion of the bidding at the sales latter-

ly has partaken of this character prices must be expected to show a corresponding weakening as long as goods are pressed.

The pine goods ex Dracona, from Quebec, were mostly Michigan, which do not find such a ready market here as those from the Canadian side, but still the prices realized seemed low. The few lots of regulars at £27 went better. The Wyborg cargo, ex Jernbarden, went very cheap at £8 15s., the f.o.b. value of similar goods at the port named being something like £8; hence a serious loss must fall on somebody. The regular battens went from £7 10s. to £7 15s. These prices show a great fall as compared with previous sales of Wyborg goods.

### GLASGOW.

The *Timber Trades Journal* of June 27th says:—A public sale of Quebec timber, &c., was held at Greenock on 18th inst., results as appended.

There have been further arrivals of Quebec deals, pine and spruce, during the past week, these imports per steam liners now assuming an important appearance. Deliveries of deals from the yards at Yorkhill are, however, going on less actively than is usual at this season.

The constant supply at Glasgow per steam liners from the States of parcels of wood, hewn and sawn, is now fairly established, especially wood sawn for special purposes, oak, &c., and in a great measure does away with the old system of timber merchant trading and dealing, the ample supply of steam tonnage contributing greatly in expanding the trade and bringing about these alterations.

More activity is now noticeable at the Fairfield Shipbuilding Yard (J. Elder & Co.'s) than has been the case for many years past. Large squads of men are engaged laying the keel blocks for the boat which Mr. Pearce is constructing on his own account and for the three 5,500 ton vessels which the firm have secured.

AUCTION SALE.

On 18th inst., at Greenock, Messrs. Edmiston & Mitchell brokers:—

| | Per c. ft. |
|---|---|
| Quebec waney boardwood— | |
| 70 c. ft. avg. per log | 2s. 4d. |
| Quebec square boardwood— | |
| 36 c. ft. avg. per log | 1s. 7d. |
| Quebec yellow pine— | |
| 30 logs 25 cub. ft. avg. per log | 1s. 1¾d. |
| 120 " 30 " | 1s. 2¼d. |
| Quebec yellow pine building timber— | |
| 60 logs 50 c. ft. avg. per log | 1s. 2d. & 1s. 1¾d. |
| Quebec red pine— | |
| 20 logs 35 c. ft. avg. per log | 1s. 2¼d. |
| 2 figured logs | 1s. 6¼d. |
| Hewn pitch pine— | |
| 2 figured logs | 1s. 4d. |

### QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c, measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine.. | 739,802 | 614,299 | 393,028 |
| White Pine..... | 438,948 | 373,325 | 581,864 |
| Red Pine..... ..... | 43,393 | 27,196 | 12,965 |
| Oak ..... | 431,138 | 320,641 | 691,650 |
| Elm..... | 83,918 | 226,120 | 266,317 |
| Ash ..... | 43,986 | 95,258 | 86,770 |
| Basswood ..... | 1,176 | 205 | ..... |
| Butternut..... | 373 | 811 | 1,004 |
| Tamarac ..... | 991 | 1,985 | 36 |
| Birch & Maple..... | 134,450 | 178,495 | 264,979 |
| Masts & Bowsprits.... | —pcs | —pcs | —pcs |
| Spars..... | — pcs | 32 pcs | — pcs |
| Std. Staves..... | 144.8.1.11 | 16.6.2.22 | 39.0.3.28 |
| W. I. Staves..... | 79.5.3.7 | 69.3.1.23 | 64.2.1.17 |
| Brl. Staves..... | 21.4.3.4 | 0.6.2.13 | 48.5.0.22 |

JAMES PATTON,
Quebec, July. 3. Supervisor of Cullers.

### Polishing Steel.

The finer the polish which is imparted to the surface in case-hardening the better will be the results. The art is a very useful one and should be thoroughly understood by every smith and worker in metel. The process is very simple. The articles are placed in some air tight receptable, generally an iron box, but often a pipe, which can be turned, and therefore admits of the more uniform application of heat. The receptacle is filled with coarse charcoal powdered and exposed to a cherry-red heat for twenty four hours if a hard surface one-eighth of an inch is desired, but from four to five hours will be long enough to make a good surface of steel.

### FROM BAY CITY TO LIVERPOOL.

A raft of timber left Bay City last week of which there is no official record at the custom house. The law relative to the reporting and clearing of vessels is a little lame in this regard, as it is not obligatory on the part of the captain of the tug towing such raft to state in his clearance papers that he has raft in tow. In the case in question, the tug Wm. A. Moore, cleared from the custom house light for Port Colborne. The ordinary reader would infer from such a clearance that the Moore had nothing in tow, while the fact was she towed a large raft of pine, Norway and oak timber. It was one to which more than ordinary interest was attached. It was made into three cribs and contained 90,000 cubic feet of oak, and 58,000 cubic feet of Norway and pine a number of spars being among the latter. The timber was some of the very best ever grown on Michigan soil and by the time it reaches its destination it will have attained a value that here in Bay City would be considered fabulous. Every piece of timber in the raft is to be taken to Liverpool, England. It seems strange that Michigan forests should contribute timber to a country our thousand miles away.

Each section of the raft drew over six feet of water. The pine and Norway were used for making cribs into which the oak was piled and then secured by heavy chains. Besides serving for the above named purpose the pine and Norway were useful for floating the heavy oak, which, when water soaked, will sink to the bottom unless supported. The raft was made up near the American chemical works, on the west side of the river. The tug Moore drew 16 feet of water and remained outside at the anchorage until a harbor tug delivered the raft to it. At Port Colborne the raft will be received by a Canadian tug and taken through Welland canal one crib at a time. From Port Dalhousie it will be taken down Lake Ontario to the St. Lawrence, down the rapids and thence to Quebec. At this port the cribs are received in a kind of a floating dry dock, the chains removed and each pice of timber thoroughly washed and cleaned, preparatory to being placed in the hold of an Atlantic vessel for the long ride across the salty sea. Probably a month will be consumed in the shipment from Bay City to Liverpool, if not longer. Every move almost, is an expense and when the timber reaches its destination, it is necessarily very valuable. Only the best stock is considered worth shipping and consequently that which is taken is the best. This raft of 90,000 cubic feet oak and 58,000 cubic feet pine and Norway -a total of 148,000 cubic feet -would be equal to from eight to ten cargoes if taken by vessels. Last week four vessels departed from Bay City carrying 68,000 cubic feet, or an average 17,000 cubic feet per cargo. It is much cheaper to transport timber by raft as it can be taken through Welland canal without trouble, while boats carrying it must take off their deck loads in order to lessen the draft of the vessel and allow her to pass through the cut. The deck load is placed on scows and reloaded to the vessel when Lake Ontario is reached. This naturally increases the cost of transportrtion.

The oak timber of the tug Moore's raft came to Bay City by rail from of the Saginaw Bay and Northwestern railroad; the Norway from near Harrison on the F. & P. M. railroad and the spar timber from near west branch on the Mackinaw division of the Michigan Central. It was the property of the McArthur Brothers, the Extensive timber dealers of Canada. Upon arrival at Liverpool it will be taken to the shipbuilding points and from there it travels the mighty deep in the shape of an English merchantman.—*Lumberman's Gazette.*

* * * * Nervous debility, premature decline of power in either sex, speedily and permanently cured. Large book, three letter stamps. Consultation free. World's Dispensary Medical Association, Buffalo, N.Y.

**Bartholdi's Statue of "Liberty Enlightened in the World"**

will be reminder of personal liberty for ages to come. On just as sure a foundation has Dr. Pierce's "Golden Medical Discovery" been placed, and it will stand through the cycles of time as a monument to the physical emancipation of thousands, who by its use have been relieved from consumption, consumptive night sweats, bronchitis, coughs, spitting of blood, weak lungs, and other throat and lung affections,

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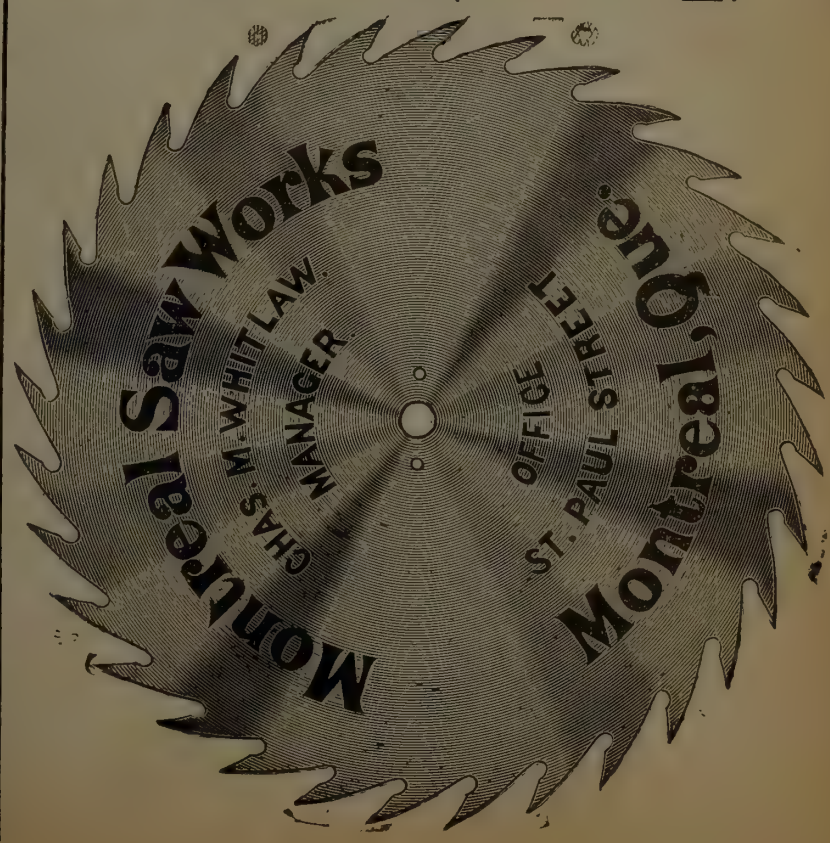
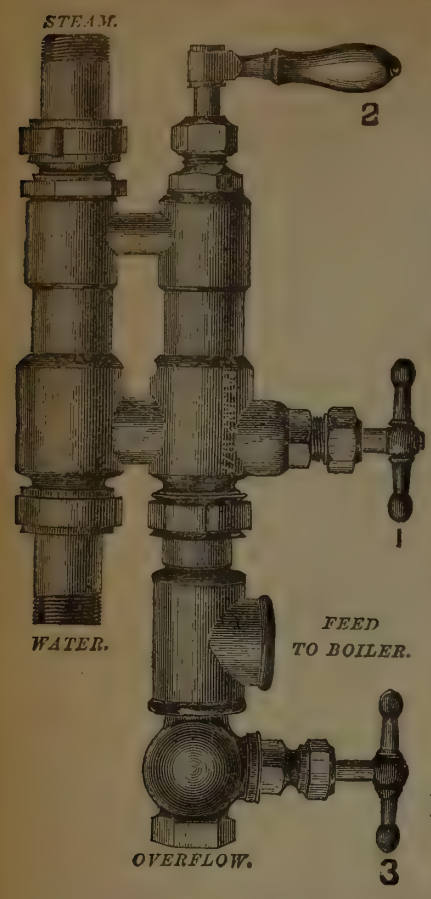



Catalogues and Price Lists furnished on application.

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For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

EXCELSIOR DOG.

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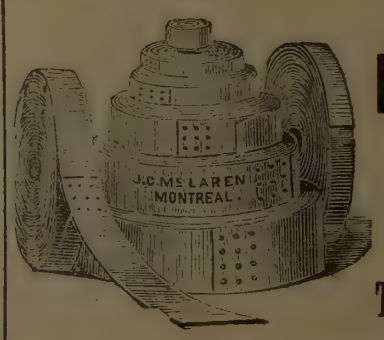


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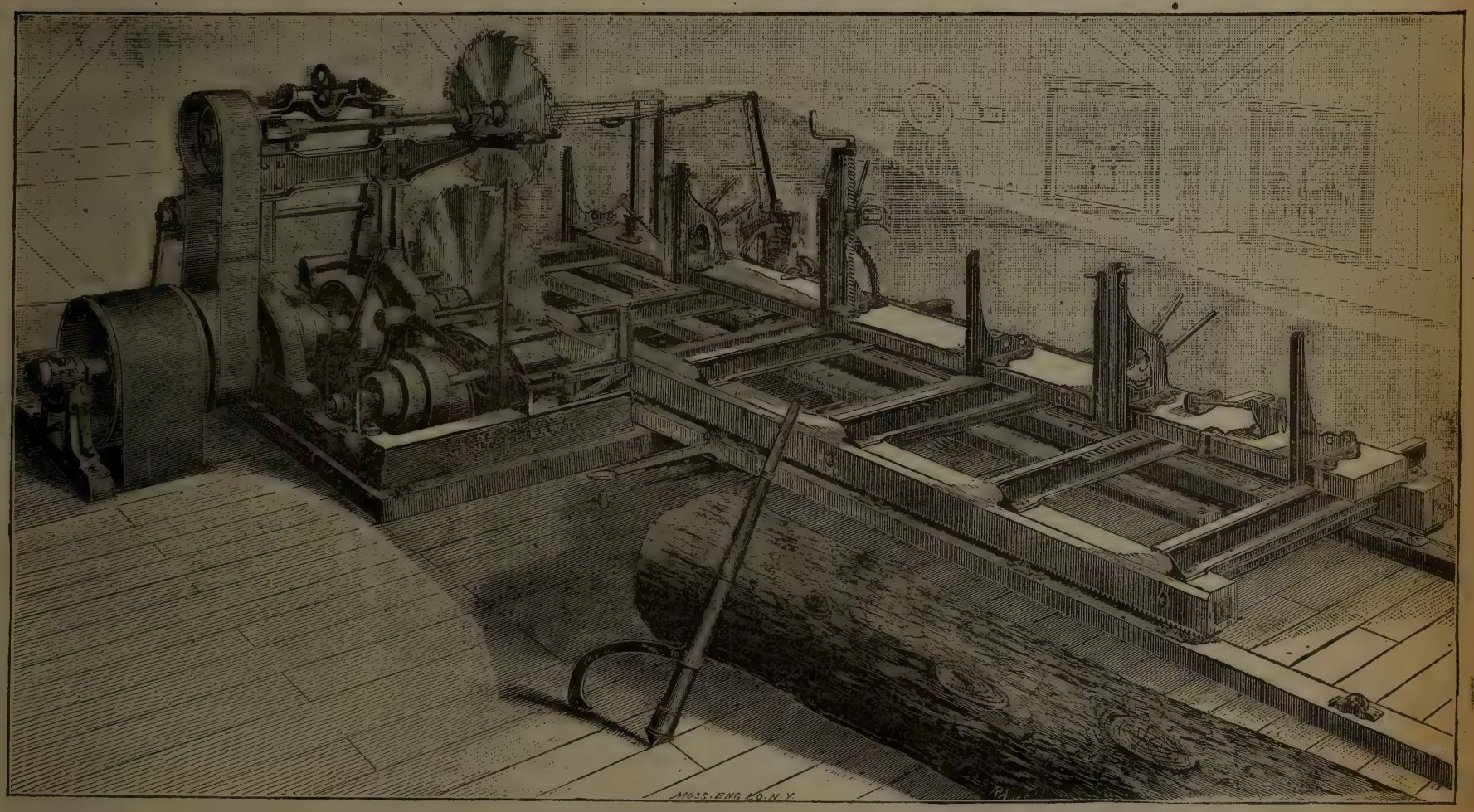

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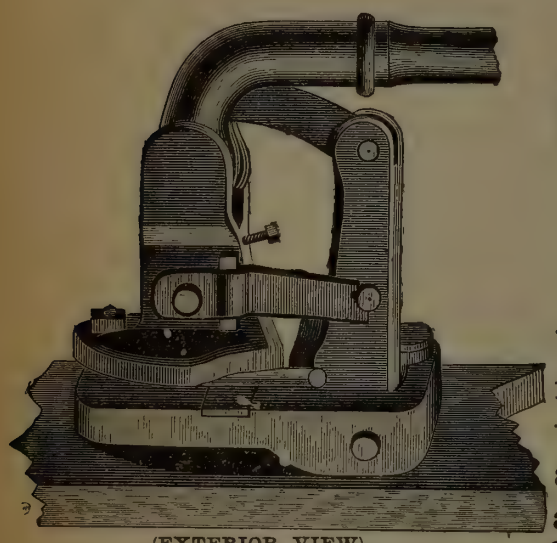

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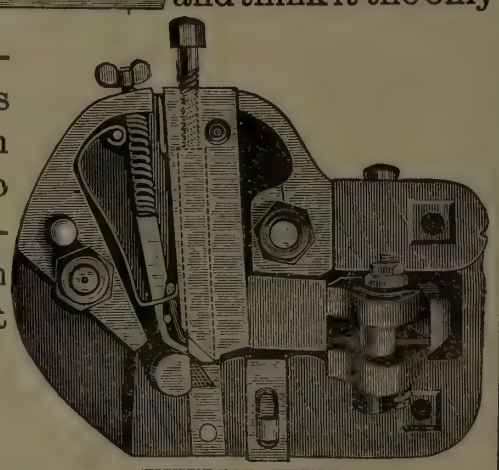
### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

*TRY IT!*

**Price $100, Cash 30 days.**



(INTERIOR VIEW)

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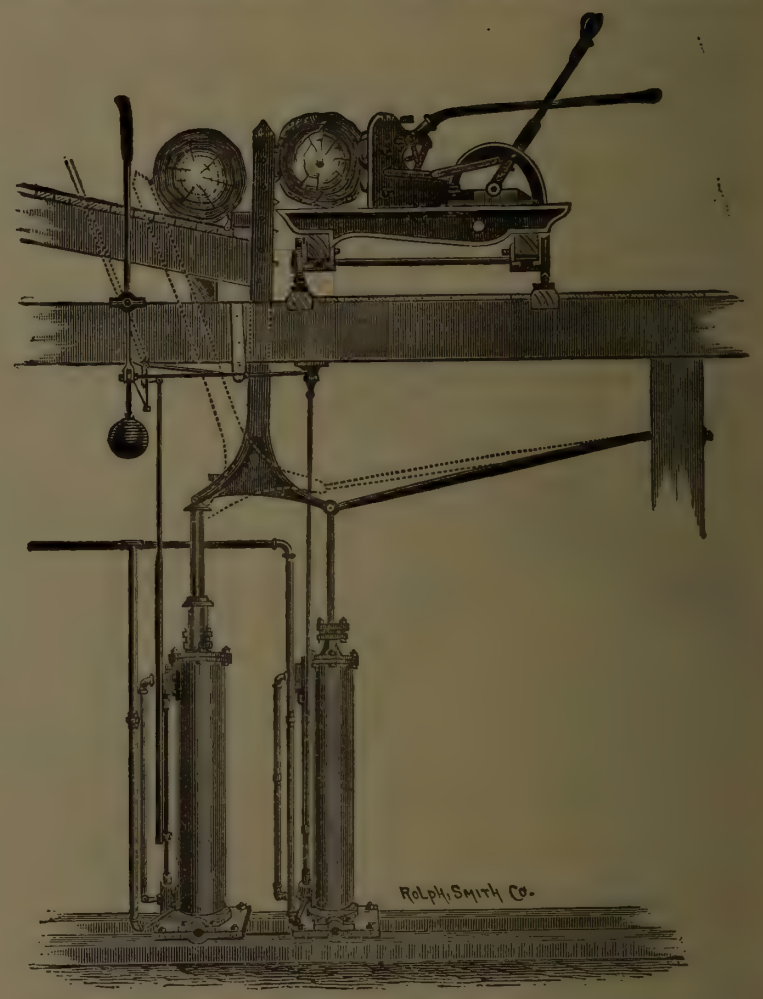


It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springimg Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

**We Guarantee each Machine in every Particular.**

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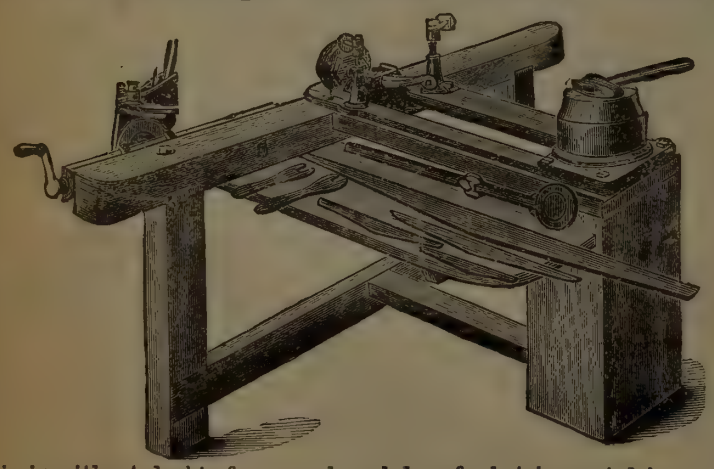
*Price $50, Cash 30 Days.*



*Price $50, Cash 30 Days.*

This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition for the File Room.

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## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERD STEAM MILL or FACTORY.***

**Cheap.**

***Cheaper than any Pump built.***

***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

***IF YOU WANT***

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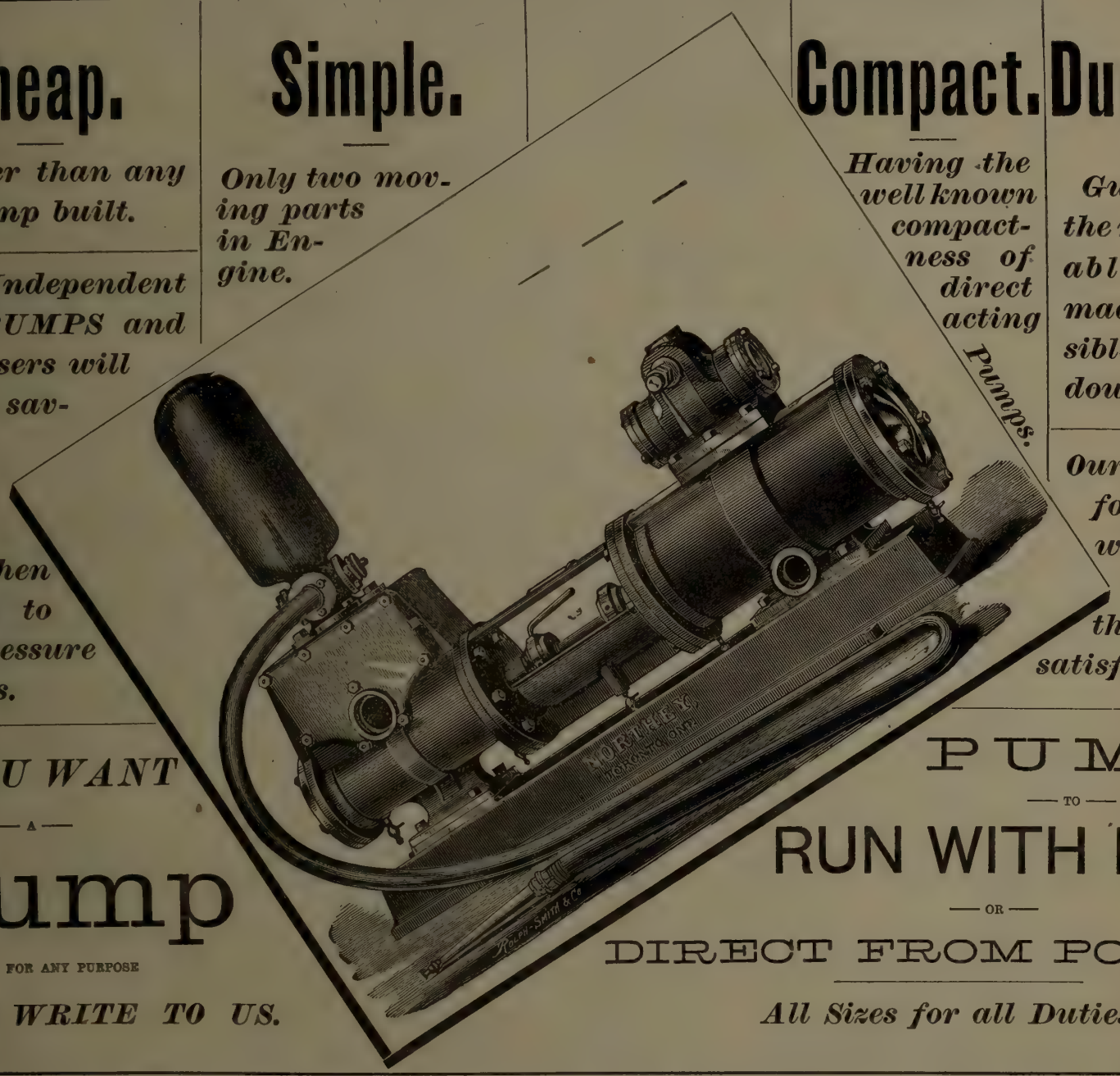
***Only two moving parts in Engine.***

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***Having the well known compactness of direct acting Pumps.***

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***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

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***All Sizes for all Duties.***

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## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

**TESTIMONIAL**

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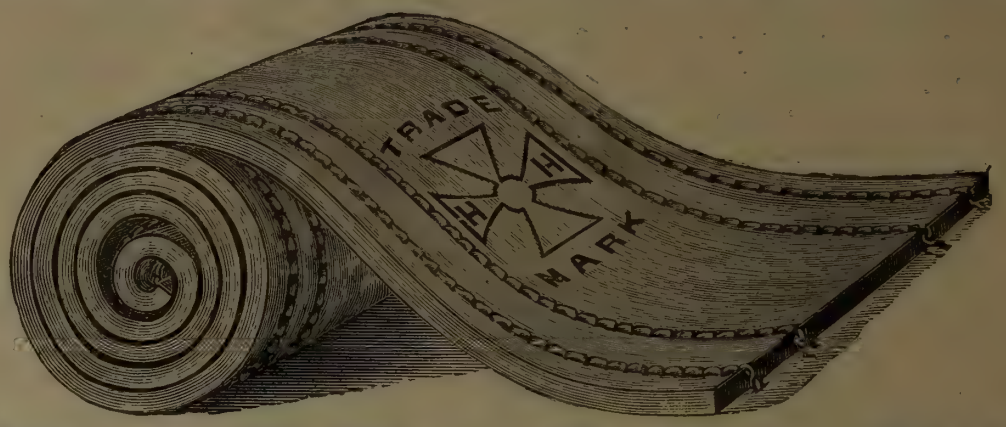
*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




**TESTIMONIAL.**

PECK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co. of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

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***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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## JAMES ROBERTSON & CO.

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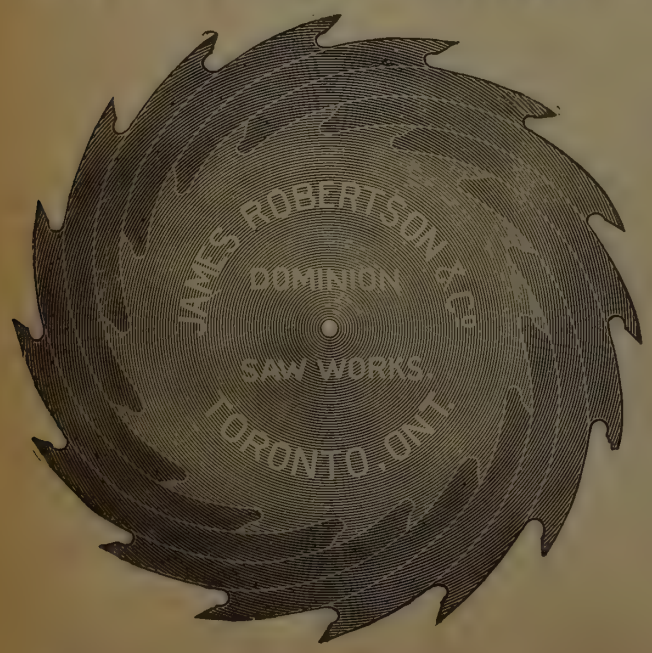


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## Anti-Friction Babbit Metal

IMPORTERS AND DEALERS IN

Band Saws, Emery Wheels, Files,
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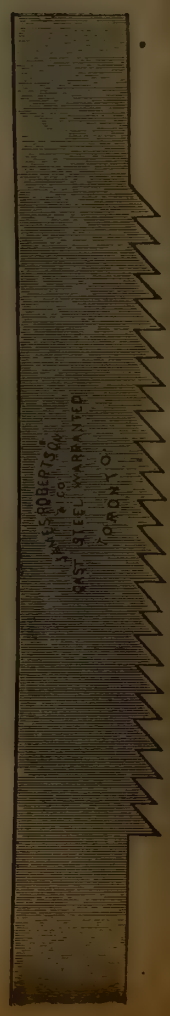
Saw Gummers, Leather Belting, Iron Pipe, &c.

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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., AUGUST 1, 1885. NO. 15.


## THE TORONTO TRADE.

*To the Editor of the Canada Lumberman.*

DEAR SIR,—When your paper comes to hand we always turn to your Toronto reports first, and I am led to say that, if the price list therein is not stereotyped, you should change it. For months you have given us the same thing. This would not be so bad were the whole thing not utterly misleading. I have been led to wonder who the prices were for. I take it very few consumers of lumber ever see your paper. In fact I understand it to be a lumberman's paper, patronized by the manufacturers and dealers in lumber. From issue to issue the price of mill culls, boards and scantling is put in at $10.00. Now if this information is for the mill man he must fancy the retail man get a good round profit. On the other hand every builder in this city knows he can get all the culls he requires at from $8.00 to $8.50, and the other figures in the price list are just as misleading so far as the trade is concerned, as in the instance cited above.

Now, what should we say if we found our Toronto papers affording such reports of the pork and flour trade? Why they would not be tolerated the second week. Is the lumber trade so scabby that is has to be treated so? True, according to your Toronto correspondent it must be in a bad way, for on May 15th he says it is "pitiful indeed," following along down to your last issue we are led to believe it could not be worse.

What with *young men* of no experience, and too many in the retail yards, and last, though not least, things have gone utterly to the dogs. Now, Mr. Editor, I beg to say the youngest man in the wholesale trade was to the manner born, is now of age, and is making it known, and that there are no more retail yards now than there were last year, and they are all fairly healthy. Doubtless the strike among the laborers has hurt the trade and business generally. But I hold, and am satisfied, that the lumber trade is in as good condition, both here and throughout Ontario, as any other line of trade. If business is a little slow with us, is that not the case in every line, and I may say everywhere? What to-day is the outlook for pork dealers, wheat growers, and cotton or sugar makers or growers? The fact is we appear to have come upon an era, shall I say an age, of low prices and small profits—it would look so. But with regard to our trade in Toronto, the worse phase, the most unbusinesslike and senseless, is, the turning of the railway yards into veritable scab, retail lumber yards. This is wrong every way we look at it, and should not be tolerated either by the railways or by the trade. What would become of the flour trade, or the iron trade, or the pork trade, if men were to bring in car lots and then hawk it about to the consumers under the *admission* that it is *on the cars*, and must be sold. This is what ails the trade in Toronto and the men who incepted and perpetuate this kind of trade will reap the natural harvest of such a mode of doing business sure and certain.

However, the yards are taking it easy and will ultimately triumph over this way of doing trade. Relying on the careful selection from the mills or from the wholesale dumping ground here, of such only as they require.

Truly yours,

N.

Toronto, July 15th, 1885.

## THE CEDAR BUSINESS.

The getting out and marketing of white cedar for the consumptive demand of the Northwest is an immense industry, and yet less is definitely known of it, among those not directly interested, than of any other forest product. The demand for cedar railroad ties, telegraph poles and paving blocks calls for the great bulk of cedar. It is true that there is a large amount of this wood used for posts in the rural districts, but this requirement, altogether, would not cut much of a figure in comparison to the demand for the other commanding purposes named. Throughout the Northwest there is nothing that can compete with white cedar for railroad ties. This is partly on account of its abundance in contiguity to the navigable waters of the great lakes, which makes transportation to market easy and cheap, partly on account of its durability, and partly because it is a light wood, easily handled. Like white pine, its very quality, adaptability and handiness to regions of consumption brought it to the fore in the first place, and will keep it there until the supply is exhausted. For telegragh poles, fence posts and paving blocks it will always distance competitors while it can be had. The question of future supply will therefore be one of vital and growing importance.

The cedar trade of the city dates back to the time when the prairie West began to be settled up, and has run an even course with the lumber business. It is, however, quite differently conducted. As has been said, the bulk of the cedar arriving at this port is for railroad, telegraph and paving purposes. For this reason the most of it is contracted for before it is cut. There are several firms here, with offices on South Water street, in the vicinity of the lumber market, who make a specialty of acting as the intermediaries between the swamp on the one hand, and the railroad and telegraph companies and the street contractors on the other. In this manner cedar is handled from the stump to the consumer, and by the method as stated following:

In the first place, the cedar dealers secure contracts to furnish railroad and telegraph companies, cities, towns, street contractors or yard dealers, certain quantities of product. They then hunt up the necessary supply. As a general thing this is found in the hands of landowners of various grades, lumbermen, jobbers, speculators or farmers. But the larger number of cedar operators are men without means to carry on a heavy stroke of business unaided by the city dealers. Hence it is common to furnish the jobbers with means to go into camp with an outfit in the shape of advances. This, of course, involves a stipulated price for the cedar delivered on the lake shore or river bank.

The briskness and profit of the cedar trade each season depends mainly on the railroad demand for ties. If that is active, business is good, for it supplements the constant requirement for street paving purposes, that does not vary so much from year to year as the railroad call, though it is gradually increasing as the cities grow. As a general thing the demand for telegraph poles is influenced by the amount of new railway construction going forward. This year, as has been true of the years since the decline in railroad building in 1881-82, the requirement from the railroads has been comparatively meager. As a consequence the cedar trade has been dull. The chief representatives of the business here do not consider that the depression prevailing is caused by any marked increase in production. They think that if the demand for railroad ties were large the trade would be in a healthy condition. This conclusion is reached because the call for street paving purposes is heavy, and it is more likely to increase in the near future than to decrease. Indeed, a dealer remarked this week that the street requirement had this year been the salvation of the cedar trade. Yet the smallness and sluggishness of the railroad and telegraph demand has had a depressing influence on prices, and a decline within the year of probably 10 per cent. has been suffered. Since 1881-82 railway ties have dropped from 36 to 38 cents each to 28 cents. The amount of decline in the value of poles is not easily ascertained, as each inch in size and the differences in length cause a wide range in values that nobody but a practical cedar man could fully appreciate. Lake freight rates are low and weak, which tends to demoralize prices of cedar.

What has been said in regard to the cedar trade of this city, and prices, pertains wholly to cargoes as passed from the woods to the consuming corporations or contractors, and has no reference to sales on the bank of lake or steam or stream or to the yard trade. The latter has its price list, which is firm or weak in sympathy with lumber and other commodities. The cargo dealers here are rather close mouthed, and are averse to stating as to what they pay for ceda on the bank. Of course values at different points differ, according to distance from market ease of loading, cost of freights, etc. In order to learn the value of cedar at the various points of production, one would have to address inquiry to each, and the result would be of no general consequence.

One leading cargo handler of cedar in the city diverges in his view of this year's trade some what from his compeers, especially as respect to the demand for ties. He reports it very good, in his own experience, and that he has had a fair demand for ties. All the other dealers assert that cedar if dull, some even going so far as to say that it is utterly flat.

The question of cedar supply is one that is being seriously considered by men who handle this product. When operations began for the supply of this market, the Green bay country was the main resource, though considerable was from the start, brought from the east shore of the lake. The larger portion of the cedar along the shores of Green bay and the lake in Door county, Wis., has been cut off, and operators have to go further back for timber. For this reason some think that the cedar supply of the Green bay country is nearly exhausted; but one dealer declares it his opinion that there is enough cedar on the Menominee and its tributaries to supply this market for 30 years. But that view is probably rather strong. It is certain, too, that the cedar of the back country in Winconsin and the upper peninsula of Michigan will largely go west and southwest by rail, and will not come to this market at all. The paving cedar of Kansas City, Omaha and other western cities now goes directly from the woods to points of consumption by rail.

The diminishing of the supply that is handy to water has induced operaters to go farther for cedar than they once did. The shores of Lake Huron and Georgian bay, and the islands in those waters, furnish a large amount of the cedar that reaches this market. Drumond island, Bois Blanc island, the Great Manatoulin island, and the numerous smaller ones that cluster around it, are all important producers of cedar. Much comes from the mainland of Canada; and it is a noteworthy fact that no duty is required on Canadian cedar, even when it is formed into ties. This encourages the shipment of cedar from that country to western markets. A large amount of cedar also comes from the Huron shore of Michigan. Altogether the sources of cedar supply are many and wide spread, and it is not likely that there will be any lack for many years.—*Northwestern Lumberman.*

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THE new consul of the United States at St. John's N. B., is Mr. James Murray who was a member of the lumber firm of Holyoke & Murray, New York. He is chiefly remembered in St. John as the shipper of a large quantity of piling from St. John to New York two years ago, in rafts, or rather cribs, the first attempt at shipping lumber in this way; many prophesied that the rafts would never reach New York, but they did.

## THE TORPEDO SHIP HECLA.

One of the most interesting ships of the British navy is the Hecla. She is not so much a fighting ship as a depot for fighting ships. She was originally a merchant vessel, and was purchased by the Government and converted into a torpedo ship. She is a torpedo ship in a very special sense. She has her own ports for the despatch of Whiteheads on her own account, she has extensive workshops for the repair of all kinds of torpedo mechanism and appliances, and she has on board of her a large flotilla of swift, second class torpedo boats—torpedo boats that is, that are not capable of maintaining an independent existence at sea, but are necessarily attached to some larger vessel. In any naval engagement the Hecla could not only on occasion hurl out her own deadly missles, but could send out a whole brood of the ugly ducklings, who have every capability of independent action while afloat, but who, having done their spiteful work, would make for the parent ship and be hauled on board. These are second class torpedo boats as distinct from first-class, which are small sea going vessels that may, on a pinch, make long voyages by themselves. One of them a short time since went to Australia by itself. Of the second class torpedo launches the Hecla has several, and what with these and her own boats this fine ship has the appearance of being quite a fleet in herself. She is among the longest ships in the British navy, her length being over 300 feet, and from end to end she is full of deadly stores for the supply of the fleet to which she is attached, or of deadly engines for her own independent use. Apart from her torpedoes, however, her armanent is nothing very great in these times. She has five of six 64 pounders, beautiful looking guns, bright as new pins—as, indeed everything is about the ship—but of no great power. Among the curiosities of defence is the protection of her cylinders and boilers by her coal bunker, packed full of coal, with thin iron plates intervening. This is an ingenious adaptation of her merchantman structure to purposes of defence. Engines and boilers in all fighting ships built for fighting are placed low down, out of the way. The Hecla's, on the contrary, are high up in the ship. The hull of the vessels is divided into seven water-tight compartments, so that it would probably take several holes in her bottom to sink her, and she has the further protection of a torpedo net extending around her at the end of the booms. She is an iron ship and has two iron decks.—*Lumberman's Gazette.*

## AUSTRALIAN TIMBER.

For constructive purposes in dockyards, piers, bridges, house carpentry, coachmakers' and wheelwrights' work, railway building, fencing and piles, nearly the whole of the Myrtscea, of which New South Wales possesses something like 50 varieties, are extremely valuable, and certain of them incomparably so. For the uses of the cabinet maker and the house decorator, the timber familiarly known as the black apple, the Moreton Bay pine, the red cedar, coach wood, Clarence light yellow wood, turnip wood myall, cypress pine and others, is capable of being worked up into furniture and paneling, beautiful in grain, rich in color, and susceptible of a high polish. The timber of the prickly leaved ti-tree is said to be incapable of decay; that of the white ti-tree it is said to be imperishable under ground; that of the turpentine tree resists the attacks of the Teredo novalis in salt water; and that of the brush bastard or white box has been known to preserve its soundness, when employed in building the ribs of a ship, for a period of thirty years. To the carver and wood engraver the cork wood the rose wood and the pitto-porum commend themselves as serviceable substitute, for European box; while the cooper finds in the native ash the silky oak the stave wood, the green and silver wattle, and the swamp oak, excellent material for staves. Other kinds of timber are especially adapted for oars, spokes, naves, tool handles, telegraph poles and turners' work.

What can be more disagreeable, more disgusting, than to sit in a room with a person who is troubled with catarrh, and has to keep coughing and clearing his or her throat of the mucus which drops into it? Such persons are always to be pitied if they try to cure themselves and fail. But if they get Dr. Sage's Catarrh Remedy there need be no failure.

## TIMBER IN ALASKA.

So little is known by our lumbermen generally of the nature, extent and value of the forestry of Alaska, that we give place to the following descriptive extract from the pen of Fred'k Schwatka, whose researches in that distant country render his observations worthy of attention:

"Nearly all of Alaska south of the Arctic circle may be said to be timbered except the Alentian Island and a narrow strip near Behring's Sea, but in a commercial sense, only the "tide water strip" need be considered, the rest of it doing only for log houses and most of the minor wants of local use. The most important timber of this region, southeastern Alaska, is the Alaskan or yellow cedar, of the very finest grain and greatly prized already by the workers in fine woods of the Northwestern Pacific coast. Some of these cedar trees grow to an immense size. At Boca Inlet, near the tip of this southeastern horn, I saw a raft made of two trees, used as a lighter, that in two loads carried ashore sixty-five tons of frieght. The trees seemed to be eight or nine feet in diameter at the butt. I understand this valuable tree grows in clusters of a few acre here and there, mostly about the water, and these areas are nearly all distributed on the islands on the lower half of the "tide-water strip." I believe these forests are worth investigation and woking, if they have not already been appropriated, for it must be remembered that it is only within the last year that any form of government has been given Alaska, so that settlement of any kind could be made. It may be impossible yet to enter these timber districts. The other kinds of timber may be interesting to note, but not in a commercial sense until the immense timber districts of our Northwestern States and Territories are exhauseed, as well as those of British Columbia. This yellow cedar has a peculiar pungent odor which protects articles encased in it from the ravages of moths, it is claimed, and while it is much more perfumed than the cedar to which we are accustomed, I doubt if it is any more efficacious than the common kind, in proportion to its odor. Still the idea is deep rooted that it is a perfect moth protector, and that is sufficient in a financial sense."

## THE FASTEST ENGLISH CRUISER.

The fastest cruiser in the British squadron to be concentrated under the command of Admiral Hornby is the Mercury, and it is asserted that she is the fastest full sized ship afloat. The vessel has attained an average speed of over 18½ knots, or 21.257 miles, an hour, and thus surpasses by half a knot the Chilean rum cruiser Esmeralda (18 knots) and the French cruiser Milau (also 18 knots, launched in 1884), as well as the Phaeton and the Iris, the latter her sister ship, but launched a year before her (in 1877). As the Mercury is 300 feet long and 46 feet beam, with a draft of water of 22 feet, this is an exceedingly high speed for so large a vessel. She and the Iris thus stand unrivaled as regards speed by any vessel of their size, the Esmeralda being only 277 feet in length, while the French vessel has a length of 303 feet, but a beem of only 33 feet. An authority on these matters says of the English cruisers that they are the first of a new type designed for high speed as the pre eminent requisite. All other requirements have been subordinated to this important element. They present a beautiful sharp bow, and long, exceptionally clean run, and are altogether admirable specimens of a design for a swift and lightly sparred vessel. They are special screw dispatch ships, and are unarmored, of course. The Mercury, which is to join Admiral Hornby's squadron, has an arnament of ten 94 pounders. She is built of steel, and in proportion to her tonnage has been one of the most costly vessels afloat. Her hull and machinery cost altogether somewhere about £198,000, or within £10,500 or £15,000 of the Iris, which has been said to be as costly per ton as the ironclad Inflexible.

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## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on July 1st 1884 and 1885, and also the Consumption for the month of June 1884 and 1885:—

| | *Stock, July 1st. 1884.* | *Stock, July 1st. 1885.* | *Consumption for the month of June 1884.* | *Consumption for the month of June 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 401,000 ft. | 188,000 ft. | 33,000 ft. | 20,000 ft. |
| " Waney Board | 320,000 " | 183,000 " | | |
| St. John Pine | 22,000 " | 58,000 " | 19,000 " | 24,000 " |
| Other Ports Pine | 62,000 " | 44,000 " | 2,000 " | 2,000 " |
| Red Pine | 67,000 " | 27,000 " | 1,000 " | 1,000 " |
| Pitch Pine, hewn | 472,000 " | 668,000 " | 278,000 " | 264,000 " |
| " Sawn | 590,000 " | 377,000 " | 183,000 " | 202,000 " |
| Planks | 71,000 " | 72,000 " | 17,000 " | 21,000 " |
| Dantzic, &c., Fir | 57,000 " | 63,000 " | 19,000 " | 5,000 " |
| Sweden and Norway Fir | 67,000 " | 40,000 " | 10,000 " | 2,000 " |
| Oak, Canadian and American | 271,000 " | 141,000 " | 25,000 " | 21,000 " |
| " Planks | 280,000 " | 167,000 " | 55,000 " | 45,000 " |
| " Baltic | 12,000 " | 11,000 " | 1,000 " | 0,000 " |
| Elm | 26,000 " | 11,000 " | 3,000 " | 0,000 " |
| Ash | 17,000 " | 23,000 " | 4,000 " | 2,000 " |
| Birch | 71,000 " | 80,000 " | 39,000 " | 71,000 " |
| East India Teak | 41,000 " | 61,000 " | 8,000 " | 2,000 " |
| Greenheart | 55,000 " | 58,000 " | 4,000 " | 11,000 " |
| N. B. & N. S. Spruce Deals | 14,857 stds | 12,449 stds. | 7,868 stds. | 5,387 stds |
| " Pine | 1 451 " | 450 " | | |
| Quebec Pine & Spruce Deals | 6,415 " | 3,508 " | 1,910 " | 2,716 " |
| Baltic Red Deals, &c | 3,056 " | 1,976 " | 1,050 " | 701 " |
| Baltic Boards | 40 " | 68 " | 20 " | 00 " |
| " prepared Flooring | 3,765 " | 3,419 " | 808 " | 1,178 " |

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of June 1885, and also for the 6 months ending June, 1885:

MONTH ENDED 30TH JUNE 1885.

| *Timber (Hewn).* | *Quantity. Loads.* | *Value. £.* |
|---|---|---|
| Russia | 27,281 | 52,003 |
| Sweden and Norway | 49,239 | 70,280 |
| Germany | 30,410 | 67,780 |
| United States | 22,310 | 70,419 |
| British India | 2,054 | 29,300 |
| British North America | 3,678 | 11,803 |
| Other Countries | 36,355 | 48,855 |
| Total | 171,327 | 350,440 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 139,354 | 277,291 |
| Sweden and Norway | 278,701 | 554,435 |
| British North America | 72,992 | 186,115 |
| Other Countries | 57,996 | 165,146 |
| Total | 544,043 | 1,182,987 |
| Staves, (all sizes) | 15,608 | 62,503 |
| Mahogany (tons) | 2,952 | 27,524 |
| Total of Hewn and Sawn | 715,370 | 1,533,427 |

SIX MONTHS ENDED JUNE 30TH 1885.

| *Timber (Hewn).* | | |
|---|---|---|
| Russia | 72,098 | 141,945 |
| Sweden and Norway | 254,267 | 349,151 |
| Germany | 146,367 | 355,186 |
| United States | 87,250 | 289,207 |
| British India | 18,813 | 261,824 |
| British North America | 9,684 | 33,922 |
| Other Countries | 203,508 | 233,221 |
| Total | 791,927 | 1,714,456 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 251,322 | 511,004 |
| Sweden and Norway | 618,114 | 1,312,672 |
| British North America | 98,724 | 241,974 |
| Other Countries | 185,191 | 557,183 |
| Total | 1,153,351 | 2,622,833 |
| Staves (all sizes) | 46,117 | 213,993 |
| Mahogany (tons) | 31,942 | 280,966 |
| Total of Hewn and Sawn | 1,945,278 | 4,337,289 |

## A FIRELESS ENGINE.

Experiments have been made recently in shop yard of Taylor Bros'. machine works, at 122 to 130 St. Joseph street, New Orleans, on a new fireless engine, said to be useful and economical for various purposes, to determine its efficiency and adaptability to the propulsion of treet cars. The motive power is gained by evaporating ammonia after a liquefaction, and it is claimed to be a success in every respect. The engineering world has long been aware of the possibility of realizing a power with great economy from the gas of ammonia, and many attempts have been made to develop it with varying degree of success, the difficulties to be overcome being principally mechanical. Mr. P. J. McMahon, a well known and practica engineer, is the inventor of this novel mode of its application. The experimental runs, although they were made with a rough car improvised for the purpose of the experiments on a temporary track and without a break, are said to have been not only satisfactory, but exceeded the estimates of the inventor himself. A prominent feature of this new invention is the superheating of artificial heat while expanding ammonical gas within it. One difficulty experienced in previous experiments was the freezing of the cylinder and the formation of ice on its surface while expanding gas within it. It was thought that this could not be overcome with the application of artificial heat. In utilizing ammonia as a motive power the process of preparation consists of separating the ammonia from the aqueous solution and reducing it to liquid under its own pressure. A portion of this liquid, as well as a portion of the solution from which it was expelled, is fed into the apparatus on the car, and as the gas is exhausted from the engine, after operating the piston, into this and is absorbed, when the power all becomes expended, the once weak solution has become a saturated solution, and is withdrawn for redistillation at the stationary apparatus, so that the actual expense of operating this motive power is measured by the coal consume i at the stationary appartus for distillation, and the necessary attendance on the same.—*Lumberman's Gazette.*

## CHOPPED IN TWO.

BOSTON, July 25.—Alex. W. Cumach, the keeper of the Union Club boat house, saw what was apparently a sack of potatoes afloat on the Charles river, opposite the foot of Revere street, at about 5 p.m. He towed it ashore, and when he opened the bag he found it contained the upper half of a woman's body. The body had been bunglingly chopped in two at the waist, evidently with an axe. It was that of a woman 35 or 40 years of age, of dark complexion and small build. Finger marks were plainly visible about the neck, showing that death might have been caused by strangling. There were bruises on each shoulder and over the right temple. The body had been in the water about four day. It was clad in an ordinary undergarment only. It cannot be said whether the corpse came from up'or down the river, for the tide was flowi g in at the time, and when picked up the sack was moving up with the current from the ocean. No person of the description given has been reported missing in this city, and the police feel that they have a big mystery on their hands.

### His Last Leap.

NEW YORK, July 24.—At about 9 o'clock this morning a small party of men, one of whom wore a linen duster reaching down to his feet, passed through the Brooklyn entrance to the bridge promenade. They walked out a little beyond the first pier to a part not guarded for the moment by the police. Then the man with the duster hastily threw off the garment and showed himself to be attired in a close fitting jumping suit. He ran quickly to the side of the bridge and, clambering through the wire netting, jumped off. He stood perfectly erect for about a hundred feet of his fall. Then he suddenly doubled up, and a second later struck the water like a bullet from a rifle. His body disappeared and did not come to the surface again. The men who were with the jumper quickly disappeared, and it was sometime before the police were informed of the tragedy. But a few persons saw it.

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### PISCATAQUIS TIMBER.

A writer in the *Industrial Journal*, of Bangor, Me., in mentioning the fact that Piscataquis county, in that state, furnishes the greatest number of ship knees produced in Maine, is reminded of the following: "Regarding the present timber growth of Piscataquis I heard a good yarn the other day. It seems that away back in the dim and legendary good old times that we hear so much about, there was in Maine a land agent named McIntire, who must have come of the famous 'bold McIntyres,' for he was a man who used his authority for all it was worth, and in this particular instance for more. In his time there were certain denizens of Nicatou, now Medway, who were accustomed to helping themselves liberally to the timber about Quakisk lake, which is on the west branch of the Penobscot above Grand Falls. This timber then belonged to the state, as it stood on land that had not yet been conveyed to any purchaser, and McIntire resolved to put a stop to the Nictou people's enterprising operations. There was a great growth of meadow hay in the section, on which the trespassers depended for the sustenance of their cattle, and the land agent, preceiving this, ordered some of his henchmen to set fire to the dry grass. They did and quite a conflagration stated. In fact McIntire builded better than he knew, for instead of simply burning up the hay the fire attacked the fine old pines and hardwood trees and swept across the country nearly to Moosehead lake destroying millions upon millions of the best timber Maine ever saw. But that fire was not all loss, for from its ashes, over the stumps of the old pines, has sprung up since a growth of sapling pine, white birch and poplar—three trees which are the source of much of the manufacturing life and commercial prosperity of Piscataquis and the Penobscot. The famous spool wood district, with its factories, is included in this rejuvenated forest section, and there are obtained second growth pine logs from which so many millions of box boards are sawed and the poplar, of which so much has been used for paper pulp. The spool stock has been sent from Bangor to points as far distant as Paisley, Scotland; the pulp wood to Providence and Maryland, and the box boards all over New England and middle states, while thousands of sacks of finished spools are sent to Connecticut and elsewhere."

### ALASKA TIMBER.

Alaska forests contain enough timber to supply the world. The forests of pine, spruce, fir and hemlock cover every island of the Archipelago and a goodly portion of the mainland.

The trees are straight and tall and grow close together. The only saw mill at present in operation is at Douglass island, and so far there has not been a cord of timber cut for shipment. The trees, as a rule, do not always cut up into good sized boards. For fuel, however, the wood is excellent, and much of it is available for building purposes. There is little decorative wood, although the yellow pine is richly colored work. Alaska spruce is an excellent variety, and often measures five fect in diameter.

It is considered the best spruce in the world, and the supply is very abundant. In the interior of the country timber is of much heavier growth than on the coast and on the islands. Regarding the hemlock, there is a large supply, and the bark compares favorably with that of all the eastern tree used in tanning establishments.

No one has yet attempted to compute the value of the Alaska forests. It may be they will not be necessary for years to come, but whenever wood grows scarce elsewhere, or whenever civilization fastens itself upon Alaska, the timber of the region will be found ready at hand and existing in rich profusion. Calculating only approximately the value of our possessions to day, the forests must be considered. Practically inexhaustible, they add most materially to the wealth of territory.—*San Francisco Chronicle.*

### FOREST FIRES.

CAMDEN, N. J., July 24.—The Jersey forest fires are now assuming most alarming proportions, and unless a heavy rain soon quenches the flames, they will have accomplished the destruction of a number of towns and small settlements among the pines of Camden, Burlington and Atlantic counties. They have never before burned so fiercely, and not since 1828 has the country been so dry and favorable for spreading the flames. Yesterday the towns of Alco, Jackson, Sloantown, Waterford, Peatletown, Winslow, Weekstown, Hammonton, Alscon and a number of other small places in Camden and Burlington counties near the Camden and Atlantic railroad, were surrounded with brush and wood fire, and all the inhabitants were out fighting the flames. Huge tracts of cedar timber and several dwellings have already been burned over, and many of those people fighting the flames had narrow escapes. A great cloud of smoke hangs over the burning district, and the country is lighted for miles around at night by the fires. The people are entirely worked out with watching and fighting the flames, and are praying for rain.

### CAPTURING A MOOSE.

Some time ago, says the Renfrew *Mercury*, the men at Russell's depot on the Kippewa discovered three large moose in the lake just about nightfall. Calvin Russell, jr., and one of the depot men secured a boat and gave chase. After a little time they succeeded in getting a rope around the neck of one of the animals, a large and old one, and then commenced an exciting tussle for three hours. The moose swam on across the lake or river, something like half a mile wide at this point, drawing the boat after him. As soon as he made the shore he rushed for the bush, but was brought to a halt after he had dragged the boat some little distance. He then took to the water again, and crossed to the other shore, where he went through the same performance. Altogether, he crossed three times before he was sufficiently tired to be secured. This was done by means of ropes around his legs, and assistance from some others of the men. The animal is now getting along very well in captivity at the deppt, where he will be tamed, preparatory to bringing him down to Renfrew this fall or early in the winter.

### EFFECTS OF SMOKE ON IRON.

The western approach of the Callowhill street bridge, in Philadelphia, is in a shaky condition. The bridge is an iron one, and its western end spans the tracks of the Pennsylvania Railroad Company at a point where locomotives are continually passing, and it is said that the sulphurous acid from the smoke stacks of the engines has been the cause of the trouble. A great deal of the iron work above the tracks most used is being gradually eaten away, and the ground beneath is thickly strewn with thick iron scales that have dropped from the bridge work, which has not been protected by proper painting. Several iron posts have been weakened and are bent in such a way as to indicate a slight movement of the bridge to the south. It is estimated that $12,000 or $14,000 will be required to restore the bridge to a good condition. The river span, which is not reached by locomotive smoke, is not affected, and is in excellent condition.

ORANGEVILLE, July 25.—John Phillips, an old employee of the T., G. and B. road, while attending to the brakes near Black Creek bridge yesterday morning, was struck on the head by the timbers of the bridge and knocked to the ground, his injuries proving fatal shortly afterwards. Deceased was 40 years of age, and his relatives live near Orangeville junction.


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New guaranteed cure for cases without use of knife. There is no longer any need of wearing awkward, cumbersome trusses. Send two letter stamps for pamphlet and references. World's Dispensary Medical Association, Buffalo, N. Y.

## VALUABLE TIMBERS OF WESTERN NORTH CAROLINA.

The standing timber in the upper counties of the mountain region are of incalculable value, and strange to say in estimating the natural wealth of the country this portion of it is almost wholly ignored. The soil being extremely fertile and rich in potash, magnesia and other mineral elements which go to make up the ash of timber, produces hard, firm and tough wood, so that it is universally conceded by experts that our hickories, birch and dogwood are of far greater value for manufacturing than those grown in any other part of the United States. So, too, the grain and texture of the ornamental woods, black walnut, poplar, maple, cherry, black birch, ash, chestnut, oaks, plum, laural, and other furniture and decorative woods, are unexcelled in an other locality. To enumerate all the purpose to which our timber are applicable and the numerous variety which grow here would be impossible for one occasion, and a large volume has been written on the subject. Still it may be intesting to note some of these. Black walnut grown here is remarkable for its exquisite veining and color and as it can be easily cultivated by planting, owners of suitable lands would do well to make plantations of this timber for future use. The stock of this timber is daily growing less and less and the largest stock is now found in these upper counties. Old fields may be planted with walnut and in forty years from now would be worth $300 or $400 per acre. What safer and more certain inheritance for his children could a young parent make, at less cost, than ten or twenty acres of idle land planted with this timber. Western North Carolina has a larger number of varieties of timber growing in its vallies and on its mountain slopes than any other part of the world. It has every known variety of ash but two, one more hemlock than is known elsewhere, all the walnuts, all the hickories, all the pines but one, all the spruces, and more herbs and shrubs useful for medical purposes. The chestnut is more handsomely veined than any grown elsewhere, the crooked maple, the poplar and the ash are more handsomely marked and the black birch vies with the best Honduras mahogany for fine furniture. There are many thousands of acres of lands which carry in the timber alone a greater value than would be sufficient to clear and fence them and put all the needed buildings upon the farms.

There is no other place in the United States where forest culture could be made more profitable; where the preservation of the standing timber should be more carefully guarded from destruction by forest fires and from the ruthless indiscriminating axe. We have seen a field of many acres in which the most valuable hickory timber had been girdled and destroyed, and many of these trees were singly worth more than the whole field cost at the original purchase. Our hickories and white oaks yield the very best timber for carriage and waggon work and before long, this region will be filled with large carriage and waggon factories, which will send their products to the low land in every direction. Our dogwood is now supplying the weaving mills of Europe with millions of shuttle blocks every year. The poplar forests will ere long be turned into paper pulp for the manufacture of printing paper and our timber is unexcelled for this purpose. Among the oaks we have the abundant chestnut oak the bark of which is the best material for the tanner, and other oaks furnish the best knees for the shipbuilders of the coast cities.

How to utilize these valuable timbers should be made a study by the owners of the fresh lands. First, the practise of burning the woods should be put an end to, summarily. The undergrowth can be kept down by ranging cattle in the timber and owners of such lands should fence them in and so utilize them to the best advantage. When old lands are thrown out they should be planted at once and so preserved from washing and waste and be made to begin a new course of profit. The cleared land should be cultivated under the most careful system by which the largest yield can be secured, and the farmer, instead of half working one hundred acres, should aim by good culture to get as much crop from forty, and so economize his land or increase his income by keeping more stock.

The time will soon come when a good deal of forest land will be cleared by new comers who will bring them under cultivation; a judicious system of clearing land should be followed so as to prevent washing of the slopes and the drying up of our unanimous prolific springs and to preserve the full volume of our streams and rivers. The head of every branch, and around every spring, should be protected by sufficient grass, and every mountain farm should retain at least three-fourths of the land under timber and utilize this wood land for grazing sheep and cattle. By taking this wise course we should preserve our forest with our springs, our streams, our pleasant climate and abundant rainfall, and while so doing gradually draw from them in continuous instalments all the wealth which nature has stored up in them for our use and enjoyment.—*Webster, N. C., Enterprise.*

## NEW FOREST PLANTATIONS.

We take the following remarks from Mr. R. Phipps' Forestry Report:

We can point to very few plantations of trees in Canada of such as to be useful for examples. A few will be found under this heading, obtained in various parts of the United States. It will be seen by observation of these examples, and, in fact, by reference to nature itself, that in starting a plantation of trees, in most instances it is well to mix the trees. Then there is a point in drainage to be considered. If we can, with a subsoil plough or otherwise, deeply cultivate the whole area of ground, it is all the better, and better still if done the year before. But if we are digging for each tree separately, we may dig in a light or leachy soil as deeply as we choose; not so in stiff clay, the water may lodge under the roots (unless, indeed, it be underdrained). The next thing to be considered is, that if we plant our young trees so as to shade a great deal of the ground and to shade one another's stems, they will grow all the faster. With this object it is well always to plant many more trees than we intend ultimately to remain there. Now, if we can mulch all the ground for our plantation, we can plant our trees as thickly as we like; but if we intend to assist our trees by cultivating the ground around them (it may be done with a crop, and often is so done), we must leave room for our cultivator between the rows. An artificial forest, planted and grown for the production of tall, straight clear timber, is a very different thing from our natural woods. In it the trees are planted as closely as experience teaches they will stand and thrive, giving each tree sufficient room for its branching top to extend and no more. Such a forest does not need, as does the natural forest, the protection of undergrowth below to shade its soil, its roots and trunks. Its own close-set formation gives shade in every part. The outside trees will branch to the ground—the inside not.

In all efforts at tree culture, it should be remembered that, though we look to nature as our original guide, yet experience teaches that, with our assistance, productions may be secured infinitely more valuable than we would otherwise have obtained. The wheat plant exists in nature, but not the wheat field. It is so with trees. If we plant them and no more they may grow and may not. But if we care for them, they can not only be made to grow far more more rapidly, but they will grow in the peculiar manner, and yield the particular kind and class of timber we intend, just as certainly as the grafted orchard will bear the grafted fruit. Suppose, for instance, that we desire a closely set forest to grow us long, straight trees, fit to yield clear beams of either hard or soft wood, we must plant the trees at proper distances, thin them at proper times (the eye can easily tell when), always remembering the principle of keeping the ground well shaded, and keep the surface ground stirred and cultivated, taking care not to hurt the roots, which roots we will find will almost seem to be watching us and to know what we are about. If we give them the habit of having the ground lightly cultivated, we will find some inches of earth always left for that purpose; (and there is nothing that more benefits a tree.) Trees, too, bring their own manure; they draw much nourishment from the atmosphere and from the rain; they drop it to their roots in falling leaves, which should be neither carried away nor blown away. But in speaking of a plantation where we can cultivate, cultivation will mix the leaves with the mould, and it will answer far better than the natural plan. Nature does not need a tree as soon nor as free from knots as we do. The next thing to consider is how to avoid growing these knots, and so we come to pruning. The rule of the best foresters in attempting to grow first class timber is that "the whole surface of ground should be canopied over with the heads. This canopy should, by gradual and annual thinning, be supported by the fewest possible stems. For pruning trees to grow to their plant and to the largest timber tree: Keep a clear leader. Cut off all brancnes large enough to compete with the stem, or which grow parallel to it. Strive the stem up one third of its height. Cut all close to the stem. With the above exceptions a tree cannot have too many branches, as the returning sap of each contributes to the growth in girthing of all that part of the stem which is below it, and to the growth of the root both in length and girthing. But pruning, like thinning a plantation, cannot be to gradual. It should be annual."

I would wish to press on owners of farm property in Ontario, especially those whose woodlots are cleared, or seem decayed past renovating, the great desirability of establishing a plantation of trees along the north or which ever be the most exposed side of their farms; call it, if we will, a shelter-belt, but when once about it, it would be much more advantageous to make the shelter-belt broad enough for a small forest. When we consider that such a shelter has often been known to double the crops in the adjacent fields, remembering too, the value of the wood which may be produced there, and how greatly care and cultivation may acceleratetthe production, it is not too much to say that, in the rapidly approaching scarcity of timber throughout Ontario, five or ten acres so devoted might become more valuable them the rest of the farm.

## PECULIARITIES OF THE LUMBER TRADE.

The following address was delivered before the Indiana lumber dealers at a recent meeting in Indianapolis:—

GENTLEMEN:—The peculiarities of the lumber trade are very peculiar, especially on peculiar occasions. Your president (not Cleveland, but your other president,) informs me that there is a rich and humorous side to the lumber trade. I believe him, but the funniest part of the biz. is to meander out into the yard with a country customer and sell him a good sized bill at a money making profit, and not have him ask you to wait until he sells his wheat, or brings his hogs to town, but pays cash, and don't ask a discount for the same. He would be one of the peculiarities of the season, and if I had run across one of them this year, I would have brought him as a curiosity. But that is my idea of the rich and humorous side of the trade, and if the president has had much of the rich and humorous this season, he is ahead of your humble servant by a large majority. But my friends and brethern, let us return to our text. Did it ever strike you as very peculiar that a 2x4 was only 1¾, that a 6 inch flooring board was only 5¼, that a standerd A contained plenty of shingles not better than 6 inch clear, that No. 2 was sometimes culls, that No. 1 was sometimes No. 2, that some yards sell for less money than others, that some yards give you better grades than others, that the first car is generally the best, and the peculiar part of the trade is to see how much more a car will hold when lumber is on a decline that when prices are stiffening, and another peculiarity is to see how nice the splinter drummers get around it. "What kind of a standard A have you?" "Well, about like so and so." "How much clear?" "Well as much as any one's." "Standard, how thick are they?" "Well, they were cut 5 to 2 inch, but as they are very dry, they won't quite hold up to that now." "Say, that last car of piece stuff was very thin, why don't you make it 2 inch?" "Well, others are cutting in thin, and we have to do the same to meet competition."

Now the peculiarities are not all on the wholesalers side. Who ever heard of a No. 1 board getting into a No. 2 pile in a retailer's yard; but it is a common occurrence to see some No. 2 crawl over to the No. 1 pile. Of course it gets there by mistake, but it is very peculiar, it never goes the other way. "Hello, White, have you any 10 inch clears?" "No sir, but I have a No. 1, 5 inch clear. It will make you a No. 1 roof. You only show 4½ inch to weather. Why don't it make you a good roof?" "Well, all right send me up enough for a 30x20 roof."

Scene in same office two weeks after; "Hello White, have you any 5 inch clears?" "No, but I have a rattling good 10 inch clear: 5 inch won't make you a good roof, it must be clear two laps." Now the peculiarity about this is, what a change two weeks makes in the shingles, for the man fully believes what he says both times.

Another peculiarity of the trade is the differences of opinions in some localities between a saw-mill man and a yard man. Why, poplar is the best lumber that grows; will hold a nail better, and don't have the knots that pine does; and for flooring, why, sycamors can't be beat; and you take sweet gum, and it will make you the best joist in the market. Now hear the yard man to the same customer. Of course the pine has the knots, but they are all solid red knots, and will stay. Then of course you can paint over them; all you have to do is to use a little shellac. And pine stays where you put it. Poplar never does get dry. Why, I have an old wardrobe, made by my father 30 years ago, and even now, every once in a while it pops like a pistol. That is one of its peculiarities; it never gets done drying. And as for scyamore, why, it is only good to make tobaco boxes out of; it stays green so long it keeps the tobacco moist. And as for gum, why, I have a piece of 2x4 in my yard that twisted through a picket fence. Why, down my way they have boys at work around the mills called "lumber herders." When they see gum plank start to roll over and go out of a yard, they turn it the other way, and let it roll back. And so it goes, one sees it one way and another the other. Now it may seem very peculiar, but there is only one thing in the line that we all see alike, and talk the same about. In all lumber yards I ever visited, they seemed to carry the same kind and use the same expressions, such as "Holy smoke, Bill, have you got a sharp knife? See if you can get that confounded Norway splinter out." "Holy smoke" and "confounded," are not exactly the expressions used unless you have a church member customer, and it is one of the peculiarties of the trade to talk to suit the customer. Gentlemen, once more allow me to return to the text. I am much obliged to you for the kind attention given your humble servant during his address on the "Peculiarties of the trade," by a peculiar man, to a peculiar crowd, on this peculiar accasion.

## The Willow.

The willow may be profitably and advantageously cultivated upon ground where no crop can be grown, such as upon swampy lands which cannot be drained for want of proper fall, or river banks, where flooding renders cultivation for cereal crops precarious. Upon ponds, embankments, or other precipices where the earth is disposed to slip, willow possesses several advantages over trees (proper) for firming such embankments, as its roots spread over the surface, and penetrate to a depth almost equal to that of timber trees, whilst the wind produces no important influence upon it by shaking and loosening the soil, or of being blown down with the wind.

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## HOW MACHINERY OUTGROWS ORIGINAL CALCULATIONS.

There is probably not an inventor who does not believe, at the moment of perfecting a great discovery, that he has accomplished much more than he has really done—secured something nearly approaching to perfection, if not quite reaching it, the fact being, meanwhile, that he has generally made the same approach towards easily attainable perfection as presented by the old firelock of the sixteenth century, which required a second man to carry flint and steel and strike fire every time the piece was to be discharged, when compared with the breech loading repeater of the present day, which is itself destined, no doubt, to be considered a clumsy contrivance by some near approaching age, when the firearm will load as well as discharge itself, even if it does not carry itself about and point its direction through the means of automatic machinery.

In such words as these did a writer express his opinions, some twenty years ago, regarding the possibilities of invention and mechanical contrivances. An examination of instruments like the Gatling gun and other nearly automatic self loading firearms at the present day, will show that the time assigned for such wonderful inventions in firearms, field pieces and heavy guns was too long, for within the last twenty years the improvements in that department of industry have signally numerous and ingenious. But if we consider this rise and progress of machinery in engineering work we also find here that machinery outgrows original calculations. There is not much doubt that Fulton, on the day when he first saw the Clermont cleaving the waters of the Hudson, was one of the proudest and best satisfied of men; but if he could have looked forward twenty years and seen what the Clermont would be looked back to as having been, certainly he would have experienced some reduction of his content. The Stevensons, when at the end of twenty or thirty years they had made such improvements in steamboats as seemed to be very nearly perfection, would have experienced something of the same belittled feeling if they could have now how their wonderful crafts were to be eclipsed and thrown aside as antique oddities at the end of a dozen years. Very fortunately the view is limited; the inventor goes on to what he concieves to be perfection, and that discouragement prevented which would so certainly palsy his hands, if not turn aside his purpose.

Some of us remember when Brunel—high in reputation as an English engineer—made and published a calculation that railway trains could never possibly be driven at a speed exceeding thirty miles an hour, because at any speed beyond this figure the pressure of the air passed through would flatten and demolish the cars; and still more of us remember when that same Brunel died, after having lived to build locomotives that ran at almost double this speed, and had driven some of them himself. Many men whose heads are only slightly grey took part in the watching and prophesying upon the first attempts at crossing the Atlantic by steam. "As an experiment this may possibly succeed once, after losing half a dozen vessels and a few hundred of lives, but it can never succeed practically, as the weight of machinery in a heavy sea must wring the vessel to pieces." So said the wiseacres, many of whom have lived to see the day when sea-going steamers have made the Atlantic little else than a ferry, and when it is crossed without the aid of steam only by cargo vessels and the yachts of a few who wish to remain as long as possible from the sight of land. Instances might be cited *ad infinitum*. It is very apparent that we do not know everything of what we are going to do when we first begin. Machinery, which began by being the servant and owes its life to the inventive grain, literally forces improvements upon itself by its suggestions, and comes very near in the end to being the master.—*Mechanics.*

THE New Brunswick Land and Lumber Company, shows no less than twenty varities of woods at the antwerp exhibition. These include poplar, maple, ash, butternut, spruce, elm, larch, pins, balsam, hemlock, &c.

## THE CULLING OF TIMBER.

The following is the full text of the bill introduced by Hon. Mr. Costigan to amend the acts relating to the culling and measuring of timber in the Provinces of Ontario and Quebec :—

1. The Governor in Council may make regulations from time to time—

(*a*) For giving effect to the provisions of the acts hereinafter cited ;

(*b*) For determining the number of cullers to be employed in each department of the Supervisor's office ; provided always that the number of cullers employed shall not at any time exceed thirty-three, apportioned in the manner following :—Cullers of square timber, fifteen ; cullers of deals, twelve ; cullers of staves, masts, spars and lathwood, three ; and such cullers shall be employed regularly in rotation, unless the Governor in Council, in any case or class of cases, otherwise prescribes ;

(*c*) Prescribing the manner of granting licenses to cullers ;

(*d*) Assigning to cullers such fees as he, from time to time, deems proper ;

(*e*) Making, raising or lowering a tariff of fees and charges for culling, measuring, counting off or making out specifications for timber, deals, staves or other lumber, under the said acts, in such manner as to meet and defray, as nearly as possible, the expenses of the Supervisor's office, and the payment of salaries to the Supervisor and the Deputy Supervisor, employed under the said acts, and so as to give the cullers employed yearly average earnings of seven hundred dollars each ;

(*f*) For granting annuties, not exceeding three hundred dollars per annum in each case, to such of the cullers who were employed on the first day of May, one thousand eight hundred and eighty, as are incapable, by reason of age infirmity or otherwise, from pursuing their business of culling, or whose services are no longer required ;

(*g*) For the payment of such annuties granted, as herein provided, out of such funds as have been collected, or as shall be hereafter collected, over and above the cost of the culling office ;

(*h*) In the event of there being no such surplus funds out of which the annuties granted, as provided in the next preceding section, can be paid, such annuties shall be paid out of the Consolidated Revenue Fund of Canada.

2. Section four, all the words in section six after the word "Act," in the sixth line thereof, and section ten of the Act thirty-eight Victoria, chapter thirty-four, and sections two, three and four of the Act fortieth Victoria, chapter sixteen, are hereby repealed.

3. This Act shall be read and construed as one Act with the Acts hereby amended.

## MAKING HARDWOOD OUT OF SOFT

For the manufacture of loom shuttles, says the London *Engineer*, boxwood has been very largely used, but the price has become almost prohibitive, and it has been found that by the compression of cheaper classes of wood—teak being about the most suitable for this purpose—a substitute meeting all the requirements can be obtained. For carrying out this process Sir Joseph Whitworth & Co. of Manchester, have just completed a powerful hydraulic press to be used in compressing wood for loom shuttles. This press consists of a strong cast iron top and bottom, with four steel columns and steel cylinder, with a large ram. In the centre of this ram will be fitted a smaller ram fitting into a die which is placed on the top of the large ram. The wood is put into this die, and a pressure of 14 tons per square inch is applied. The pressure is then relieved, and the large ram descends. The top pressure block, which fits the die, is then removed, and the small ram rising, pushes the wood out at the top of the die. The wood so treated is made very dense and uniform, and so close grained that it is capable of taking a very high finish. For the manufacture of shuttles it has been found to be fully as good as boxwood, and there is not any doubt but that a similar process might be readily applied with advantage to many other branches of industry where expensive hardwoods have to be used.

## LAKES OF SOLID SALT IN ASIA.

Yar-oilan means the sunken ground, and no word can better describe the general appearance of the valley of these lakes. The total length of the valley from the Kangruali road to the Band-i-Dozan, which bounds it on the east, is about 30 miles, and its greatest breadth about 11 miles, divided into two parts by a connecting ridge which runs across from north to south, with an average height of about 1,800 feet, but has a narrow ridge which rises 400 feet above the general average. To the west of this ridge lies a lake from which the Tekke Turcomans from Merv get their salt. The valley of this lake is some six miles square, and is surrounded on all sides by a steep, almost precipitous descent, impassable for baggage animal, so far, as I am aware, except by the Merv road, in the northeast corner. The level of the lake I made to be about 1,430 feet above sea level, which gives it a descent of some 400 feet from the level of the connecting ridge, and of some 950 feet below the general plateau above. The lake itself lies in the centre of the basin and the supply of salt in it is apparently unlimited.

The bed of the lake is one solid mass of hard salt, perfectly level, and covered by only an inch or two of water. To ride over it was like riding over ice or cement. The bottom was covered with a slight sediment, but when that was scraped away the pure white salt shown out below. How deep this deposit may be it is impossible to say, for no one has yet gone to the bottom of it. To the east of the dividing ridge is the second lake, from which the Sarvks of Penjdeh take their salt. The valley in which this lake is situated is much the larger of the two. The valley proper is itself fifteen miles in length by about ten miles in breadth. The descent to it is precipitous on the north and west sides only, the eastern and southeastern end sloping gradually up in a succession of undulations. The level of this lake is apparently lower than that of the other. I made it out to be some 800 fees above sea level. The salt in this lake is nor so pure. It is dug out in flakes, or strata, generally of some four inches in thickness, is loaded into bags, and carried off on camels for sale without further preparation.

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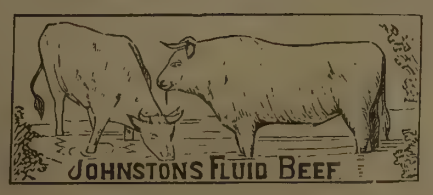


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*PETERBOROUGH, Ont., AUGUST 1, 1885.*


IN Kansas a Boston gentleman has planted a square mile of prairie with trees.

THE forests of western North Carolina are yearly supplying the mills of Europe with millions of shuttle locks.

IT is reported that Boyd & Crowe, lumber dealers, Winnipeg, have leased Bulmer's lumber mill at Rat Portage, and will begin to operate it in a short time.

IMPORTS of logs, timber, sawed lumber, and shingles into the United States for the 11 months ended May 31 amounted in 1885 to $6,694,226, and in 1884 to $7,640,022.

IT is said that during the coming winter Dollar's mill on the Georgian Bay will be rebuilt. The balance of this season's stock will be cut at the mills of Messrs. Peter's & Cain and McLeod & Cameron.

THE schooner Helen Spry, on July 17th, cleared from Manistee, Mich., for Kingston, Ont., with 600,000 feet of deal on board, that averaged 80 per cent. firsts. The value of the cargo was $20,520.

AN effort is being made to put on a line of steamers between Ashland, Wis., and Port Arthur, Ont, so as to promote through traffic between the Canadian Pacific and Milwaukee & Chicago by that route.

THE Rathbun Company have purchased the little steam saw mill at Campbellford, Ontario, known as Dunk's mill. They intend to use it for the the purpose of cutting up tie timber and also such hardwood logs as will not float to Deseronto.

ACCORDING to a consular report the annual average export of forest products from Russia was, from 1867 to 1871, valued at $9,900,000; from 1872 to 1876, inclusive, at $23,000,000, and from 1877 to 1881, inclusive, at $23,900,000. The highest point was reached in 1880, when the value of the exports reached $26,400,000.

THE redwood posts of a fence erected in Napa, Cal., 32 years ago were recently removed and found in as good condition as when first put into the ground.

FOREST fires in the lower Puget sound country, W. T., are reported unusually prevalent this season, on account of dry weather. McElroy & Stewart, loggers on the Samish, had their camp destroyed, involving a total loss of $7,000. About a dozen ranches in Whatcom county have been swept by fire, and much loss to farms, gardens and orchards has occured.

## AN EXCELLENT EXHIBIT.

AT the World's Industrial and Cotton Centennial Exposition, which closed on May 31st at New Orleans, there was exhibited the largest display of wood working machinery ever shown at any Industrial fair held in the country.

The S. A. Woods Machine Co., of Boston, New York and Chicago, had one of the most extensive and finest displays of planing mill machinery to be seen at the exhibition, and received eight gold medals for the eight different machines entered for competition. This exhibit was under the special supervision of Mr. J. R. Joslin, Vice President of the Company, who spent some three or four months at New Orleans and became popularly identified with the exhibitors of the fair and displaying so much executive ability that the following exhibitors have united in sending him a testimonial, handsomely engraved, acknowledging Mr. Joslin's ability as a representative machinery manufacturer:—Greenlee Bros & Co., Chicago, Ill.; E. P. Allis & Co., Milwaukee, Wis.; H. B. Smith Machine Co., Smithville, N. J.; W. H. Clarke, Bradford, Pa.; E. W. D. Link, Erie, Pa.; S. C. Forsaith & Co., Manchester, N. H.; Tunis Gang Flooring Machine Co., Baltimore, Md.; Smith, Myers & Sherin, Cincinnati, Ohio; The Land & Bodly Co., Cincinnati, Ohio; L. R. Dodge, Erie, Pa.; Edward F. Gage, Manchester, N. H.

The works of the S. A. Woods Machine Co. was established in 1854 and located at South Boston, Mass., employing 280 men. They have offices and warerooms in Boston, New York and Chicago, and manufacture as a speciality, planing, matching and moulding machines which have attained a world wide reputation for excellence. Mr. S. C. Wood is President of the Company, J. R. Joslin, Vice-President and Elroy N. Heath, Secretary and Treasurer.

In our next issue we will give a fuller notice of the exhibit of this firm, with an engraving of their new machine.

## WOOD WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the United States patent office, June 30th, 1885, is specially reported by Franklin H. Hough, Solicitor of American and Foreign Patents, 925 Fifth street, N. W., Washington, D. C.

321,716.—Lath sawing machine—J. T. Hall, St Louis, Mich.

321,423.—Lathe for turning irregular forms—W. H. Doane, & G. W. Bugbee, Cincinnati, Ohio.

321,762 & 321,763.—Lathe—D. C. & S. E. Smith, St. Paul, Minn., 2 patents.

321,803.—Log turner—D. W. Dorrance, Moore's Salt works, Ohio.

321,853.—Mortise cutter—S. G. Randall, Greene, N. Y.

321,571.—Scroll saw—A. Bernritter, New York, N. Y.

321,823.—Saw buck—C. Klien, New York, N. Y.

321,525.—Saw mill, circular—W. J. Perkins, Grand Rapids, Mich.

321,482.—Saw guard—J. A. Comer, Indianapolis, Ind.

GRANTED JULY 14TH.

322,322.—Lathe centre—G. Rich, Philadelphia

323,165.—Saw fitting machine—W. H. Dressureau, Otsego Lake, Mich.

321,976.—Sawing machine, circular—J. H. Jones, Lynchburg, Va.

321,396.—Sawing machine, circular—A. Rodgers, Muskegon, Mich.

322,134.—Sawing machine, circular—P. B. H. Smith, Brooklyn, N. Y.

321,969—Wood splitting machine—E. A. & S. B. Hildreth, Havard, Mass.

GRANTED JULY 21ST.

322,816.—Planing and finishing thin pieces of wood, machine for—A. M. Ford & J. M. Moore, Jericho, Vt.

322,596.—Saw, drag—R. Gurney, Kirkwood, Mo.

322,473.—Saw, drag—J. J. Parker, Aitkin, Minn

322,775.—Saw table gage—M, B. Banowetz, Browns, Iowa.

322,658.—Sawing machine, circular—C. Trier, Chicago, Ill.

322,748.—Sawing machine, scroll—D. W. Perry, Harrisbug, Pa.

322,586.—Wood bending machine—C. E. Sargent, St. Louis, Mo.

322,519.—Wood preserving apparatus—L. Hansen & A. Smith, Wilmington, N. C.

## RAFTS ARRIVED.

The Quebec *Chronicle* says that the following rafts have been entered at the Supervisor of Cullers' Office, Quebec since July 13th:

July 13.—Wm. Little, deals, etc. Three Rivers.

Thos. Buck, elm, ash, etc., New Liverpool.

D. D. Calvin & Co., elm, St, Michael's cove.

July 20.—D. D. Calvin & Co., oak, sundry coves.

M. O'Shaughnessy, deals, Nicolet.

July 21.—Jas. M. Irvin, square and waney pine, St. Lawrence docks.

Collins Cay Co., lock bands, Dobell's cove (Sillery).

D. D. Calvin & Co., oak and pine, sundry coves.

H. E. Hall, deals and planks, Cap Rouge.

RAFTS ENTERED AT THE SUPERVISOR OF CULLER'S OFFICE.

July 16.—D. Cream, birch and ash, Indian Cove East.

E. L. Sewell, deals and boards, Bourg Louis.

## FIBER IN NAILS.

Unless cut nails are made from better material than is used generally now, their place in the market will be usurped by nails made from fibrous matetial. Wire nails are very favorably regarded, and are used in preference to cut nails on account of their superior tenacity, notwithstanding superior cost. The iron for cut nails, after being rolled, is slitted or cut lengthwise to the width adapted to the length of the nail to be cut. The length of the nails so cut is directly across the fiber which the iron has acquired by rolling, and, of course, shows its weakest part where it should be the strongest. The ordinary cut nails will not drive into seasoned hard wood without "crippling," even under direct blows, and when the blow of the hammer is to one side, they snap like clay pipe stems; they have no tenacity. The weakness of these nails is shown by the fact that it is almost impossible to straighten one that has been drawn from the wood, and then drive it again; in many or most instances the nail will break in drawing. On the contrary, the wire nails may be crooked into corkscrews, and then straightened and be re-driven. They are not only tough, but they are stiff, and will penetrate hard wood where the cut nail would break sharply off or hopelessly crook beyond re-straightening. In every respect the fibrous nail is better than the crosscut nail. If it could be afforded at the same or an approximate price, it would take the place of the ordinary cut nail. —*Scientific American.*

## AUSTRALIA.

Messrs. Lord & Hughes' monthly circular dated Melbourne, 30th May, 1885, says:—

Our last circular was under dace 5th inst., since which offerings have been restricted and sales smaller. The same uncertainty as to European complications exists, and the same uneasiness in mercantile minds continues; consequently, the trade are unwilling to lay in stock, and will only purchase for immediate requirements. We can look for no improvement until the question of peace or war is definitely decided by the powers that be.

Trade from the yards continues fairly active, and building goes on the same extent that it has done for the last two years, and seems likely to continue. Should we have peace, building operations will be largely extended, as money will be plentiful and cheap.

RED DEALS.—Imports: Nil. On 28th ult., the cargo ex Hermann was all cleared off at auction, N=W, 9x4, realising 5 1-16d. to 4 13-16d.: 11x3, 5⅝d.; 9x3, 4 13 16 to 4 5 16d.; 8x3, 4⅜d.; 7x3, 4⅜d. to 4 3 16d. The cargo ex Gevalia was also offered, but only a smal portion sold. Privately, about 5,000 pieces 9x3, A+S, have been quitted, ex Forfarshire, at prices withheld.

SPRUCE DEALS.—Imports: 18,240 pieces. These arrived ex Obed Baxter, from St. John's and have not yet been offered at auction.

OREGON TIMBER.—Imports: Nil. Sales by auction have been of cargo ex John de Costa, at an advance on previous rates, and balance ex Titan.

LUMBER.—Imports: Nil. Sales by auction have been made of various parcels ex vessels from Boston and New York, clear pine and ceiling being rather difficult to quit, except at a concession on rates ruling last month, in consequence of full stock. Shelving, however, met with ready sale at an advance.

REDWOOD.—Imports: Nil.

FLOORING AND WEATHERBOARDS.—Imports; 1,021,200 feet lineal. The only arrivals have been Tweedsdale, from London; Firth of Clyde and Loch Long, from Glasgow. Sales by auction have been made ex Arthurstone, Bonheur, Augusta, Tweedsdale, West Lothian, and Thor, at following prices:—Red, 6x1½, 10s. 9d. to 10s. 6d.; 6x1, 8s. 6d.; 6x¾, 8s. 3d.; 6x⅝, 5s. 3d.; 6x½, 5s. 6d. and 5s. 3d. White, 6x⅝, 8s. 6d. to 8s.; 6x½, 5s.; 4 out weatherboards, 6s.

KAURI PINE.—Imports: Nil. Various lots of Kauri in the log have been offered at auction, but the only sale has been of round logs, ex Grassmere, at 12s. 6d. The cargo of flooring and sawn boards and flitches, ex Defiance, has been quitted also.

CEDAR.—Imports: 356,200 feet super. Arrivals have been Ellen, from Sandakan, Borneo; Rachel Cohen, from Maryborough, and usual coasting steamers. The cargo ex Ellen, was offered publicly on 26th inst., only ten logs being disposed off at 23s., and at yesterday's auction only 40 logs, ex Rachel Cohen, were sold at 37s. to 23s.

DOORS.—Imports: Nil.

LATHS AND PICKETS.—Imports: Laths, 3,471 bundles; pickets, 851 bundles.

SLATES.—Imports: 145,400 pieces. These arrived per Falkland Hill, Androsa, and Hospodar.

PLASTER.—Imports: Nil. No sales of importance have transpired.

CEMENT.—Imports: 5,171 barrels. This continues in fair demand, and sales have been reported privately of Knight, Bevan, & Co.'s at up to 14s. 6d. Gostling's is quoted at 14s. 3d., and outside brands at up to 12s. A parcel of Eastwood's (Wellington brand) was offered publicly on 19th inst., but 12s. being best bid it was withdrawn.

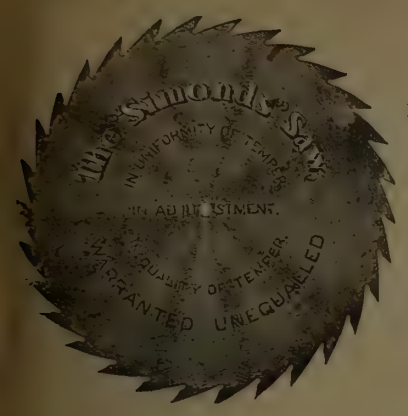
GALVANIZED IRON.—Imports: 1,607 tons. Only a moderate amount of business has been done, prices for favorite brands ranging up to £18 17s. 6d. for 26-gauge.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3; T. and G. flooring at per 100 feet running; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 feet super; Kauri pine and cedar logs at per 100 feet super; laths, pickets and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

### Mammoth Drive of Logs.

There is now floating in the Trent River, coming down from the north, one of the greatest aggregation of logs that ever greeted the eyes of lumbermen. It is the property of Messrs. Rathbun & Son, and Gilmour & Co., and comprises about 500,000 pieces. It consists of a drive from the Otonabee via Peterborough, one from Beaver Creek by way of Marmora, another from Deer River, and a fourth from North River. The four drives all meet at Crow Bay, and will come down in one body. Large numbers of logs reached Crow Bay last week, and were boomed. They will be let loose this week, and to-day or to morrow the big drive will begin passing through the slide here.—*Campbellford Herald, July 24.*

# ST. CATHARINES SAW WORKS!

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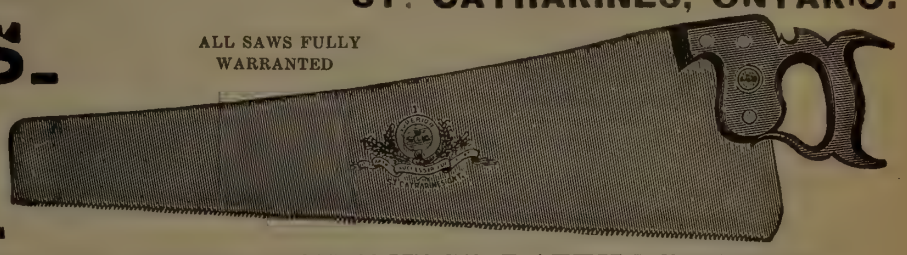
MANUFACTURERS OF EVERY DESCRIPTION OF

**SAWS.**

ST. CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

**"SIMONDS" SAWS.**

☞ *All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*


### NO MORE MONOPLY.

The monopoly of the telegraph business of the dominion so long enjoyed by the Western Union through its attachment in Canada, the Great Northwestern, is about at an end, as in the course of a month and as soon as the railway service is opened between here and Winnipeg, the immense telegraph system of the company will be thrown open to the public. "Our system is now in first-rate condition," said a high official of the road to-day to a *Star* reporter, "but we do not desire to open it to the public until we are in a position to give ample satisfaction and at the same time to despatch gangs of men to any portion of the line to carry out repairs."

In telegraphic circles here it is known that the most gigantic efforts were made by Jay Gould on behalf of the Western Union to get control of the Canadian Pacific lines. This was peremptorily refused and negotiations are believed to be on foot for the laying of a cable to connect the Canadian Pacific system with Australia, China and Japan. The Dominion Government has in fact been approached on the subject by an English capitalist, but with what results has not yet transpired.

A gentleman who is unusually well posted in telegraph matters stated to-day that if the Canadian Pacific adhered to its present policy of ignoring the Gould clique it would revolutionize the telegraph system. The Canadian Pacific, he said, had a complete monopoly of the business west of Winnipeg, and no doubt had valuable connections with the adjoining republic, probably over the Vanderbilt system of railways, with whom the company was on the best of terms.—*Montreal Star.*

### A Horrible Traffic.

CHICAGO, July 29.—Hundreds of diseased sheep, the *News* asserts, are overlookeed daily at the stock yards here and slaughtering as mutton for this city. Sales are made openly despite the presence of inspectors. The animals are shocking spectacles. A thousand diseased sheep are bought at the yards daily by mercenary "scalpers" and sold to the unsuspecting public as good mutton. A reporter visited the pens yesterday and twenty of them contained diseased sheep. On an average there were twenty diseased sheep in each pen; scab, foot rot, and glanders were the ailments of the entire lot. The sheep were slaughtered and are now in the butcher shops.

### The Losses of the Settlers.

BATTLEFORD, N. W. T., July 29.—Messrs. Muras and Ouimet, commissioners for settling the losses of the settlers, visited a number of farms in this neighborhood, and to-day opened a court for the hearing of evidence. They promise prompt payment of all claims which are well established.


## WANTED.

A PRACTICAL MAN to manage a Sash, Door, and Blind Manufactory, which has a Planing Mill and Box Department connected, in all giving employment to 100 men, located at Syracuse, New York, U. S. A. Persons applying must be conversant with all details and thoroughly capable. For further information address,

CRANE, BELDEN & CO.
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*On the North Shore of Lake Superior or Georgian Bay.*

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THE MASKINONGE LUMBER COMPANY offer for sale their property consisting of Saw Mill at Maskinonge Bridge, P. Q., within quarter mile of N. S. Ry. Station, also good facilities for shipping by water. Capacity of Mill 50,000 feet per day, water and steam power; saws and belting all complete. Two hundred and forty square miles of limits situated about thirty miles from Mill, which are interseeted by a number of good driving streams, and are rich in Pine, Spruce, Cedar, etc. Satisfactory reasons for selling out.

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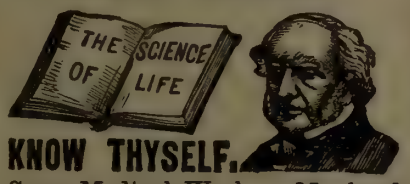


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### A Great Medical Work on Manhood,

Exhausted vitality, Nervous and Physical Debility, Premature Decline in Man, Errors of Youth, and the untold miseries resulting from indiscretion or excesses. A book for every man, young, middle-aged and old. It contains 125 prescriptions for all acute and chronic diseases, each one of which is invaluable. So found by the Author, whose experience for 23 years is such as probably never before fell to the lot of any physician. 300 pages, bound in beautiful French muslin, embossed covers, full gilt, guaranteed to be a finer work in every sense— mechanical, literary and professional than any other work sold in this country for $2.50, or the money will be refunded in every instance. Price only $1 00 by mail, post-paid. Illustrative sample six cents. Send now. Gold medal awarded the author by the National Medical Association, to the officers of which he refers.

This book should be read by the young for instruction, and the afflicted for relief. It will benefit all.—*London Lancet.*

There is no member of society to whom this book will not be useful, whether, youth, parent or guardian, instructor or clergyman.—*Argonaut.*

Address the Peabody Medical Institute. or Dr. W. H. Parker, No. 4 Bulfinch Street, Boston, Mass., who may be consulted on all diseases requiring skill and experience Chronic and obstinate diseases that have baffled the skill of all other physicians a specialty. Such treated success fully without an instance of failure.

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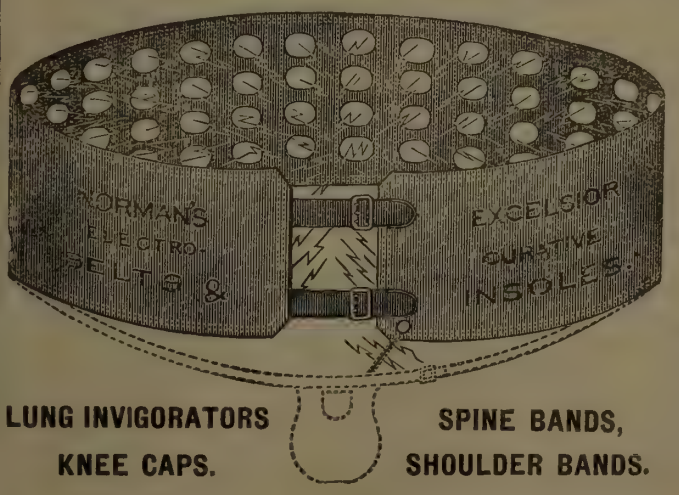
## MONTREAL, QUE.

# Norman's Electro-Curative Belt!

*4 QUEEN ST., EAST, TORONTO.*




This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
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and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

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## *A. NORMAN, Medical Electrician*

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*N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination.*

### AN ENORMOUS RAFT.

Experiments are what develope all practicable possibilities, and experiments are from day to day developing the fact that the saw mills on the Saginaw river are not to be dependent entirely on the availability of the log supply of the streams tributary to the Saginaw river, or even on the log supply of the lower peninsula itself. The problem has long been discussed as to whether saw logs could not be transported to the mills on the Saginaw river direct,—where they can be converted into lumber better than at any place on earth and to the best market in the world—cheaper that to cut them at other points, and transport the lumber.

All sorts of devices have been resorted to for towing logs, and patent log cribs have been invented with this special object in view. But it has just been demonstrated that logs may be towed in the ordinary boom sticks of enlarged size devoid of the cross pieces, and the entire raft bunched in one solid body of logs, with a considerable degree of safety.

A raft of 3,000,000 feet of logs covering about six acres of water surface, has just reached the Saginaw river, from the Lake Superior, and the logs deposited in the boom at the mouth of the river, without the loss of a single log, notwithstanding the fact that the enormous raft encountered one of the worst blows of the season during its run of 60 miles on lake Superior.

The logs were cut on Hurricane and Big Two Heart rivers and are said to be as fine a lot of logs as was ever towed into the Saginaw river. They were owned by R. K. Hawley, and H. C. Thurber, and were towed through the lakes by the tug Winslow, being nine days in the passage from the rivers where cut to Bay City, having made the passage of the rapids of Saulte St Marie in the meantime. It will take about four days to return the boom sticks, consuming therefore about 13 days for the round trip, at $125 per day, or $1,625. Add to this, the harbor towing at the "Soo," and we have a total expense $2,025, or less than 70 cents per thousand. We furnish the above figures for the purpose of showing the apparent pecuniary feasibility of the undertaking.

The description of the raft which has thus raised the hopes and articipations of our mill men is as follows: It is surrounded by boom sticks as in an ordinary raft, but they are much larger than those in ordinary use, being three or four feet in diameter and securely bound together by chains. The logs are floated in, all in one compact mass but only one deep, and they are said to become so firmly bound together by being in one solid body, that the heavy seas have no other effect on them than to give them an undulating motion, so slight that the bark on none of the logs ten or twelve feet from the edges of the raft is even chafed. The logs are so arranged that the boom sticks joined together form a pointed prow for the raft which reduces the resistance and makes the towing comparatively easy.—*Lumberman's Gazette.*

### LOG DRIVERS NOMENCLATURE.

The Stillwater, Minn., *Gazette* recently had the following: "During the course of a long trial in the district court, a few weeks ago, in which important matters relating to log driving were under consideration, there were very many terms used by the witnesses, who were mostly men familar with the logging business—which had a strange and peculiar sound to ordinary landsmen, of whom the jury were mostly composed. Even the attorneys were a little slow in catching on to the correct idea in many cases, and had to be corrected and kept up to the text in numberless instances. 'Wing jam' was the first thing that began to give the jurors trouble. But inquiry developed the fact that a collection of logs on the shore of a stream is known as a wing-jam; while a 'centre' is a jam of logs on an island in the centre of the river. 'Breaking a centre', of course, is dislodging logs that have hung up on an island. 'Tow-head' is another name that confused the crowd, except that part of the crowd composed of loggers. Any of the latter class will tell you that a tow head is a very small island, invisible at high water, but sticking up above the surface as the water recedes, just enough to stop the downward course of floating logs. Why it is thus named does not seem so clean. A 'sweeper' is an uprooted tree which has fallen into the stream, and oftentimes as a log or a boat containing the men comes upon such an object unexpectedly, the poor fellows are swept off into the flood. But when a witness, asked how long time was required to perform a certain piece of work, replied: 'I think it was one day and a lunch,' all the non-professionals looked blank. It seems the men on the drives expect to put in all the hours of day light at solid work. Consequently breakfast is served about half past five in the morning the first lunch at 10 or half past; the second at two or three in the afternoon, and supper when the day's work is finished. So that a 'lunch' in the division of time means one third of a day."

### FROM THE WEST.

A correspondent of a contemporary writes from Keewatin as follows:

The Rainy Lake Company's mills at Rat Portage have not yet started up. The company has sold all its last year's cut, and has from 8,000,000 to 10,000,000 feet of old logs on hand.

F. T. Bulmer & Co. have sold all their lumber on hand. They have a stock of new logs, about 3,000,000 feet, which will arrive about August 1st, when the mills will likely begin.

The Ontario and Minnesota Company's mill is not yet ready for sawing, but it is expected to be so by the middle of August. This company has from 10,000,000 to 12,000,000 feet of logs now being towed in. The concern was unfortunate when the rivers opened, in having its logs carried down against the ice of the Lake of the Woods, but it ultimately got them secured without much loss.

R. Cameron & Co. have been sawing since the first of June. Their last year's cut is all sold. Their supply for this year will be about 4,000,000 feet, principally Norway.

Dick, Banning & Co., of Keewatin, have sold out their last year's cut, and began June 15th to saw. Their log supply will be from 3,000,000 to 4,000,000 feet, principally old logs that have been hung up for three seasons, but now nearly all out of the creeks. The leading member of the firm, W. W. Banning, died suddenly June 7th, and is much missed. He was an old settler of Winnipeg, a successful man of business, and of strict integrity.

The Keewatin Company has 7,000,000 to 8,000,000 feet of one and two year old lumber on hand. The mill started up May 18th. The log supply will be 10,000,000 feet, of which a large proportion is from Minnesota. The company has just landed a splendid raft of 1,400,000 feet, and is at work cutting up into railway timber for the railways now being constructed in the west.

Several firms have been pushing sales and lowering prices, making it a struggle for the survival of the fittest. A large part of the old stock is now worked off and there are indications that what remains will meet a better market, as a fair demand has begun lately in western Manitoba and the Territories.

Rat Portage and Keewatin have now six mills, with an aggregate cutting capacity of 50,000,000 feet, so that there is no longer any necessity for western Canada purchasing at the mills in Duluth or Minnesota.

### FROM SAGINAW VALLEY.

THE *Northwestern Lumberman* says:—A late visitor at Menominee, Mich., was struck with the fact that a number of Saginaw lumbermen were there looking after stock, and that there was much being said about the movements of Saginaw men in that district. The Menominee *Herald* speaks of Saginaw men being "thick as bees" on the streets of that city. These men have discovered that logs are plentier in the Menominee region, and can be had at lower prices, than in older sections of the lower peninsula, while the all lake carriage of lumber to eastern markets is as cheap, or cheaper, than from the interior of the lower peninsula, which necessitates a partly rail transportation and transhipment at Saginaw, Bay City, Detroit or elsewhere. Besides, the owners of stumpage and logs in the Green Bay districts are not so jealous of their property as are the Saginaw valley men, who have the pine of the older districts well "coopered," and want to make the most of it. The buyers for eastern markets, who are at present operating in the Menominee district, can get logs cut into boards and thick stuff in the "through and through" fashion demanded by the eastern market, and this is the reason why they are in Menominee. This movement of Saginaw valley men northwestward is bound to increase, so that the time is not far distant when they will be seen not only in the Green bay country, but along the shore of Lake Superior all the way to Duluth. The emigration of lumbermen, as it were, shows that the eastern trade is no longer to be satisfied with Saginaw and Huron shore lumber, but will compete more and more in the scramble for pine northwestward of Lake Michigan.

### SHORTAGE IN MAINE'S LUMBER CROP.

Serious news comes from the lumber region of the destruction of forests and a falling off the in supply of lumber, averaging about fifty per cent. since last year. Gen. J. M. Haynes, the most extensive operator and manufacturer of lumber on the Kennebec waters, says that the cut last winter was less than usual, and that there being no old logs carried over last year as compared with last about 50,000,000 short. The season has this year been unusually dry, hardly any rain having fallen this spring. All the water for driving has been derived from melted snow on the upper waters of the Moose River. Not less than 2,000,000 logs have already been abandoned. The logs on the north and south branches of Dead River are practically abandoned, together with a large amount of logs at Long Falls without water to take them over. The number that will be left back on Dead River in not less than 15,000,000, so that to the 50,000,000 of shortage from last year is to be added 30,000,000 of the stock not driven this year, which leaves the stock for the present year just about one half of what it was in 1884, and the stock of that year was only an average one.

Recently on account of the drought, forest fires have raged in the Dead River country, burning over large tracts of timber, which will necessitate great activity in that region next season to get burnt timber into market before it is destroyed.

The cut of logs by the Penobscot lumbermen the past winter was unusually small, not exceeding 60,000,000 to 70,000,000 of spruce, with perhaps 25,000,000 of pine. The drives on the Penobscot waters are, on the whole, better than those on the Kennebec, but with the short cut on the Penobscot and the logs hung up there for want of water, the stock on that river is not more than one half the usual quantity.

Notwithstanding this failure of supply, the market for manufactured lumber is not yet as strong as the condition of affairs would seem to demand. This is largely due, according to Gen. Nagres, to the large imports of lumber into New York from St. John. While there is not a large supply on the river, the St. John manufacturers have been early in our market with the last season's product of logs, forced thereto by the depression in the English deal trade. "If, as may be reasonably expected" says Gen. Nagres, "the imports from St. John should be exhausted during the present season, there must eventually be a sharp advance toward the close and the early part of next season." In the matter of imports frem St. John, American lumberman are very restless and uneasy. They believe that a great deal of foreign lumber gets in free of duty, under the provisions of law which admits free of duty lumber grown on American soil but manufactured in the province of New Brunswick.—*N. Y Sun.*

### FOREST FIRES.

If forest fires keep on destroying the woodlands all through the summer at the same rate as they have done during the past month, there is every indication that the loss incurred in this manner by the national resources will throw every other form of fire losses into the shade. The average citizen takes but little interest in the quantity of buildings and manufacturing establishments that are consumed monthly by fire; this is partly due to indifference, and partly to the knowledge that *his* property is insured; but the interest he takes in forest fires is practically *nil*. Indeed, what does he care whether thousands and thousands of acres of woods are burned? That does not concern him; it is none of his loss. But when an agitation is instituted against the lumberman to prevent their cutting the trees—ah—that is something entirely different; the subject is to him about as clear as stove-blacking, but of course he understands it all, and joins heartily in the wholesale condemnation of these horrid lumbermen who want to rob us of our fine forests. As woods are not insured against fires, there is no collection of statistics to show the annual losses, but if they could be obtained we are fully convinced that the total aggregate would be enormous. What are we going to do about it? Let things go as they have gone, without even an attempt to offer some form of check? We have laws, and fortunately they are enforced, to guard against incendiaries, but our forests are considered universal property, and if by accident or carelessness somebody starts a fire, why, they are only trees, such man thinks, and there is no harm done. How many acres of woodlands are burned up during the dry season ignited by sparks from locomotives? How often is a forest fire started because some mighty hunter did not think it worth his while to put his foot on a piece of burning gun wading? There are dozens and dozens of conditions where a large conflagration could have been prevented by even a very small amount of care, but nobody takes an interest in it. And where is the law that so effectually protects our other property? Why not have it apply to forests as well? They represent money. It seems that a constant agitation of this subject is necessary to insure the amount of attention that must, as a matter of course, precede the institution of any active measures to prevent the constant waste of our forest resources by destructive fires.—*Lumber World.*

### EFFECTIVE TEST FOR A STAY BOLT.

According to the Railroad Gazette, F. M. Wilder has in use on the New York, Lake Erie and Western railroad a simple and very effective test for stay bolt iron. Instead of testing the iron for ultimate tensile strength in a testing machine, Mr. Wilder puts a piece from 30 to 36 inches long into a vise and bends it back and forth about 90° degrees each way and notes the number of such bends which the iron will stand before breaking. His requirement is that a sample of iron shall stand twelve such bends before fracture. Different brands $\frac{7}{8}$" in diameter stand from 4 to 16 bends. This test had its origin in the fact that the fractures, coming as they do on the inner edge of the outside fire-box sheet, indicated that they were caused by a bending or transverse strain concentrating at that point. It was at first attempted with success to imitate the effect of these strains by vibrating the upper end of a stay bolt in a shaper, giving it a throw of one-eigth of a inch, which was assumed to be the maximum to which they were exposed in practice by the expansion of the fire box. It was found that from 2000 to 8000 such vibrations produced such fractures as were found to result from ordinary use. The above is a very simple, inexpensive, and rational way of testing material for such purposes. When all tests are made under the conditions of actual use, as nearly as can be done, we shall hear of fewer accidents by failure of engineering.

### Crimson Stained Wood.

The following is a crimson stain that is frequently used for musical instruments: Ground Brazil wood, one pound; water, three quarts; cochineal, half an ounce; boil the Brazil with water an hour, strain, add the cochineal, boil gently for half an hour, when it will be fit for use. This is first applied, and then the varnish, consisting of rectified spirits of wine, half a gallon, six ounces of gum sandarac, three ounces of gum mastic, and half a pint of turpentine varnish; put the above into a tin can by the stove, frequently shaking till well dissolved; strain and keep for use. If it is harder than is wished, thin with more turpentine varnish.

IF a four-inch and a two-inch shaft are both solid and each make 100, or any other given number of turns in one minute or other specified time, six times as much power will be consumed in turning the larger as in turning the smaller shaft.

# Chips.

THE demand for shingle and other stuff at the Cedar Mill, Deseronto, is very great, and in order to meet it that establishment is working extra time. The shipments have been verv heavy up to date.

THE Oval wood Dish Company, of Delta, O., has started a branch factory at Essex Center, Ont. It is said that last year 8,000,000 wooden dishes were imported into Canada, and this enterprise will take advantage of this demand.

CAN a young lady who thinks a great *deal* of a *spruce* young man, and *pines* for his company, be said to be in the lumber business? Certainly, if she *boards* at the same place. makes him *plank* down the cash for ice cream; and *bawls-some* (balsam) when he threatens to leave her.

THE strongest wood in the United States is that of the nutmeg hickory of the Arkansas region, and the weakest the West Indian birch. The most elastic is the tamarac, the white or shell bark hickory standing far below it. The highest specific gravity, upon which in general depends value as fuel, is attained by the blue wood of Texas.

THE *Monetary Times* says:—Duncan McCuaig of Goderich, recently finished the shipment of the square timber that has been got out under his supervision during the past winter. It amounted to over 200,000 cubic feet, and required nearly 250 cars to haul it away. Mr. McCuaig states that ship timber is becoming scarcer year by year, and anticipates that a much smaller force of men than usual will be engaged next winter in getting out timber.

THE strongest wood in America, according to Professor Sargent, is that of the nutmeg hickory of the Arkansas region, and the weakest the West Indian birch (*burseya*). The most elastic is the tamarac; the white or shellbark hickory standing far below it. The least elastic and the lowest in specific gravity is the wood of the Ficus aurea. The highest specific gravity, upon which in general depends value as fuel, is attained by the bluewood of Texas, Condalia obovata.

THE Kootenay Syndicate, Limited, is registered in London, Eng. with a capital of £10,000 in shares of £1. The company proposes to acquire land in British Columbia, or elsewhere in Canada or the United States, to redeem and irrigate the same, to erect saw and flour mills, and engage in lumbering, and to undertake by steamers, boats, rafts, canoes, etc., the navigation of the Kootenay river and lakes, and of the Upper Columbia river. The subscribers all live in London. Mr. W. Bailie Graham is managing director.

THE wood of the cork elm, ulmus racemosa, is heavier and stronger than that of the white elm or slippery elm. It is close-grained, susceptable of fine polish, and useful for agricultural implements, wheel stock, bridge timbers, etc. It is quite distinct in form from the other elms, and deserves to be planted largely for ornament and use. It ranges from southwestern Vermont through western New York, Ontario and southern Michigan to Iowa, and south through Ohio to central Kentucky, reaching its best development in the southern peninsula of Michigan.

## ENGLAND'S FUTURE TIMBER SUPPLY.

The *Lumberman's Gazette* warns John Bull of the necessity of providing for his future timber supply. We quote:—Imagine Sweden, Finland and Russia requiring all their timber for their own consumption! Is it within the bounds of probability that such a time can arrive within the next ten generations? England is the largest importer of wood in Europe, requiring 290,000,000 feet per annum more than she produces. Inasmuch as neither Canada nor the United States can much longer spare large quantities, and since no European country can now produce much more than is required for home consumption, while almost all of them are importers, Great Britain must ere long depend on her own resources. There are extensive tracts of land in Ireland and Scotland that might be profitably devoted to forest culture.

## MANGLED BY MACHINERY.

Shortly after ten o'clock this morning the employees of McClymont's and company's saw mills in New Edinburgh were horified at seeing a few men carrying the naked body of a man named D. Cadieux up from the basement of the mill where he had been fearfully mutilated by the machinery. He has been in the employment of the firm since the spring as a carpenter and handyman. This morning he left the workshop and went down to the basement of the mill for some unknown purpose. The millwright was at the time sewing the belt which runs the shaft of the shingle mill up stairs. When Cadieux entered the basement, without evidently realizing his dangerous position he leaned on the wheel which instantly started. The belting knocked him down and pinned him between the belt and a pillar where he was terribly lacerated by the blunt rivets in the belting. The machinery was promptly stopped, and Cadieux extricated from the machinery and laid on the floor unconscious and prostrated in a pool of blood. He was then removed to his home and medical aid summoned. Dr. Bell, of New Edinburgh, after dressing the wounds, put 11 stiches in his right side and four across his breast The unfortunate man is about thirty years old and has recently been married. At four o'clock this evening his condition was very precarious, and little hopes of his recovery are entertained.—*Ottawa Free Press, June 15th.*

Best French Brandy, Smart-weed, Jamaica Ginger, and Camphor Water, as combined in Dr. Pierce's Extract of Smartweed, is the best remedy for colic, diarrhœa, cholera morbus, dysentery or bloody-flux; also, to break up colds fevers and inflammatory attacks if necessary.

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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1f

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

JULY 24.—There is but slight improvement in trade to be noted, up to time of writing. The strike is believed to be nearly at an end, some few men having already returned to work, it is confidently expected that in a few days the balance of the men out on strike will resume their employment. The effects of the strike will be felt, however, up to the end of the season. Lumber both on the cars and unloaded has accumulated to some extent since my last letter, but will, I think, be lessened somewhat after building operations have been resumed, as but for the suspension consequent upon the strike there would not have been any appreciable increase of stuff unloaded on the track side.

I enclose revised quotations, as appying to yards only, although not strictly accurate, as I still find dealers vary in their prices, the length of haul from track to yard determines in some measure the price, as bills are generally quoted delivered where used. The longer the haul from track to yard the shorter the distance generally to the point where wanted, so that some dealers still ask the figures now quoted in your columns.

Shipping from our docks is confined to two or three firms and is small in amount.

The demand from Western Ontario is mainly met by shipments from Georgian Bay by water, and this will continue to be more than ever the case. The freight agents of the various railroads at their last meeting agreed for the future to weigh all cars going over their roads, charging in full for all thereon, regardless of quantity. This step must have the effect of advancing prices on bills cut to order, and in my opinion will act injuriously to the interests of the N. & N. W. R. R., for the following reasons: Sarnia, Courtright and one or two other places having become distributing points for lumber from the Georgian Bay and some other places, the quantity going there will be increased, and less go from stations on the N. & N. W. R. R. The G. T. R. R. Co. know they will have the hauling for greater or lesser distances of most of this lumber after it gets to the places above named, so that in my humble opinion the agent of the latter road has stolen a march on the agent of the former. That this will be the case in the matter of all lumber outside of bills cut to order does not admit of a doubt. I shall be free to admit my error if a six months trial of that compact does not sicken them.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅜ Beaded Sheeting, dressed | 13 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₩ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## CHICAGO.

BY THE CARGO.

The *Northwestern Lumberman* of July 25th says:—The amount of lumber arriving at the cargo market has thus far this month been steady, and evenly distributed from week to week. The average for each seven days is nearly 200 cargoes, an amount perhaps somewhat smaller than last season's receipts for a corresponding time, but yet enough to show that the demand for lumber to maintain trade at this point is still immense.

Dimension is being fed out to the market rather more liberally than formerly, though there is moderation in the feeding still. Prices have scored another advance; that is, the range on short green is now from $8.75 to $9 00, with considerable selling at the latter figure. One lot of White Lake piece stuff, with none more than 16 feet long, has been sold to arrive at $8.82½, the purchaser to pay half the tally charges over there. This is considered equivalent to $9 a thousand sold on the market here, and should make a cargo running a considerable per cent. to 18 and 20 foot stuff worth $9 a thousand, quick. Some commission men make $9 a thousand an unquestionable price for short green dimension, which is a clear advance of 25 cents a thousand within the past ten days.

The demand for long dimension is bringing in deck loads of it, as an accommodation to the yard men. That which is cut in special sizes, with a desired percentage of 3x12 or 3x14 in it, sells up to $13 a thousand in some instances. The range on long joists is from $11 to $13, $11 to $12 taking in lots that have considerable 2x6 and 2x8 or 2x10 in them. The feeling in regard to this class of lumber is decidedly firm and even bullish.

A good deal of No. 1 stock is changing hands. Some comes to market, but more is sold at the mills, or here to arrive. It is going into yard stocks steadily, the majority at $17 to $17.50. Half a dozen cargoes of David Ward's Manistee choice lumber has lately been sold here at $27 a thousand, which includes selects and uppers, and some fine common. Dry No. 2 stock is not as plenty as it was, and green No. 2 is only occasionally seen on the market. Yet this class of lumber is the weakest of any, though all that is being offered on the market is readily disposed of at $9.50 to $11 a thousand.

Shingles are now attracting a large share of attention. They have slid up another notch, and are five cents a thousand dearer than last week, standards bringing from $1.95 to $2.10 a thousand, and other classes in proportion. All reputable brands that are offered are eagerly taken at the advance.

| | |
|---|---|
| Dimension, short, green | $ 8 75@ 9 00 |
| " long green | 11 00@13 00 |
| No. 2 boards and strips | 9 50@11 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@18 00 |
| Shingles, standard | 1 95@ 2 10 |
| Shingles, extra | 2 10@ 2 30 |
| Cedar | 1 65@ 1 80 |
| " clear | 2 15 |
| Lath | 1 20@ 1 50 |

Lake freight rates are quotable as follows:

| | |
|---|---|
| From Grand Haven, dry | $ 1 12½ |
| From Muskegon, by steam | 1 12½ |
| White Lake, dry | 1 25 |
| Ludington | 1 25 |
| Manistee | 1 25@1 37½ |
| Frankfort | 1 50 |
| Menominee | 1 37½ |
| Cheboygan, Duncan City, St. Ignace | 1 37½ |
| Alpena | 1 50 |
| Manistique | 1 50 |

AT THE YARDS.

Though there has been no appreciable change in the volume of shipment since last week, inquiry is more frequent, and it is evident that the country trade is beginning to manifest some interest in preparation for the fall business.

Retail yard dealers are just now in something of a quandary about the future probabilities. A large number still cling to the opinion that lumber is to be cheaper, as much from habit seemingly as anything else.

It is generally believed that if the improving tone in regard to wholesale yard prices can be maintained until the August demand begins to rise, there will then be no difficulty in realizing an advance. It is claimed, with good reason, since better prices have been realized on some classes of dimension and on shingles in the dullest month of summer, surely a sharp rise may be expected with a booming August trade.

A significant feature of the present condition, as showing the mood of the dealers, is the recent calling in of travelling men, which has been quite general. This shows that the dealers do not want to force trade under present prospects, and that they are expecting an advance in prices.

The frequent and urgent inquiry for joists, 2x12 and 3x12, 24 and 26, and timbers 30 feet long, continues to be mentioned as an important incident of trade. Long 2x6 and 2x10 stuff is also in active request. In fact, the very dimension sizes that were a drug last year are in demand now. Even 24 foot 2x4, that was so freely cut into 2x12 last year, is now wanted, at firm prices. The supply seems to have changed ends, as it were. How far this peculiar condition can be overcome by the grand hunt for new supplies that is going on remains to be seen.

Shingles have come to the front in a decided manner at an advance of ten cents a thousand in the yards, on good brands, and 10 to 15 cents on the cargo market.

Receipts of lumber, shingles, etc., from Jan. 1st to July 23rd as reported from the Lumberman's Exchange:—

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 60,229,000 | 23,033,000 |
| 1884 | 50,432,000 | 25,109,000 |

FROM JANUARY JAN. 1, 1885, TO JULY 23, 1885, INCLUSIVE.

RECEIPTS.

| | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 710,508,000 | 251,906,000 |
| 1884 | 880,415,000 | 427,689,000 |
| Decrease | 169,907,000 | 175,783,000 |

STOCK ON HAND JULY 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 418,132,353 | 470,292,195 |
| Shingles | 233,865,600 | 295,843,825 |
| Lath | 46,166,544 | 46,889,385 |
| Pickets | 1,871,609 | 1,331,104 |
| Cedar posts | 554,777 | 297,545 |

LAKE RECEIPTS FROM JAN. 1 TO JULY 23.

| | |
|---|---|
| Lumber | 585,567,100 |
| Shingles | 226,316,000 |
| Lath | 15,178,000 |
| Wood, cords | 14,911 |
| Posts | 1,997,805 |
| Railroad ties | 984,111 |
| Slabs, cords | 15,782 |
| Bark, cords | 5,104 |
| Poles | 9,080 |
| Spiles | 800 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₩ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₩ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1½ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₩ M | 100 @120 00 |
| Black waluut, ⅞ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ₩ M | 40 00@43 00 |
| Ash, second quality, ₩ M | 25 00@30 00 |
| Cherry, good, ₩ M | 60 00@85 00 |
| Cherry, common, ₩ M | 25 00@30 00 |
| Oak, good, ₩ M | 40 00@43 00 |
| Oak, second quality, ₩ M | 20 00@25 00 |
| Basswood, ₩ M | 25 00@30 00 |
| Hickory, ₩ M | 40 00@40 00 |
| Maple, Canada, ₩ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₩ M | 38 00@40 00 |
| Shingles, shaved, pine, ₩ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₩ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in prices, the demand is still very light, dealers only purchasing to keep stocks good. New cut lumber is arriving very slowly and is not in good condition. Collections are slow.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1½x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in, stripe | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| Cedar | 2 75@ 3 20 |
| Lath, No 1 | 1 75@ 1 90 |
| No 2 | 1 00@ 1 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## QUEBEC.

The *Chronicle* of July 24th says:—There is very little doing as purchasers are not willing to pay the high prices at present demanded by manufacturers. Timber arrives very slowly, and the stock at present in market is unprecedentedly low. We understand that some fresh Waney, about 18½ inch, has been sold at 34 cts. and a couple of choice rafts of 62 to 63 feet, 16½ inch, with 20,000 feet of Waney, have been sold at 32½ to 33 cents. In Hard Woods there is little doing.

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c, measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine | 1,340,757 | 979,500 | 807,865 |
| White Pine | 1,213,190 | 903,680 | 994,448 |
| Red Pine | 123,556 | 50,311 | 42,275 |
| Oak | 871,427 | 452,275 | 934,677 |
| Elm | 242,609 | 507,131 | 602,508 |
| Ash | 146,335 | 341,581 | 162,931 |
| Basswood | 1,337 | 685 | 47 |
| Butternut | 825 | 1,088 | 3,018 |
| Tamarac | 2,765 | 16,937 | 1,482 |
| Birch & Maple | 136,494 | 185,053 | 303,437 |
| Masts & Bowsprits | —pcs | —pcs | —pcs |
| Spars | — pcs | 32 pcs | 17 pcs |
| Std. Staves | 341.6.1.1 | 16.6.2.22 | 39.8.3.21 |
| W. I. Staves | 332.9.0.1 | 69.3.1.23 | 67.7.2.04 |
| Brl. Staves | 77.0.0.21 | 0.6.2.13 | 48.5.3.07 |

JAMES PATTON,
Supervisor of Cullers.

Quebec, July. 3.

## LIVERPOOL.

The *Timber Trades Journal* of July 18th says:—The first portion of the spring fleet of timber laden vessels from Quebec has now got into dock, and are discharging their cargoes as rapidly as possible, so as to get away again for a second voyage.

The Canadian and Brocklebank docks quays are now looking lively under the present pressure of work, and contrast greatly with the general apathetic aspect they have borne for such a lengthened period.

Several parcels of very fine square yellow pine timber are to be seen, and no doubt much of this will soon be on its way up the country to the hands of consumers. It will be some days yet before the hardwoods, such as oak, elm, ash, and other descriptions, will be landed.

Spruce deals, however, come forward very sparingly, and the market in consequence is very firm, especially for the better class of shipments. These are now being more readily dealt with by private treaty than recently; but an auction sale of these goods, together with birch timber, &c, is announced to take place on Wednesday next, 22nd inst.; meantime holders are very firm.

Pitch pine timber still comes forward on the market, and a cargo of hewn timber will also be offered by auction at the latter end of this week.

## LEITH.

The *Timber Trades Journal* of July 18th says As anticipated in last report, the imports of wood goods from the Baltic have this week been very small, but from America there are two important arrivals, viz., the Garibaldi, from Quebec, for Messers. John Mitchell & Co., being the first cargo of the season from Quebec, and the Scots Bay, from Beaufort, with a large shipment of hewn pitch pine for Messrs. James Duncan & Co. The Quebec ships are unusually late this year, the Garibaldi, which was also the first arrival last year, for same importers, being then eleven days earlier.

There has been no public sale this week, being the first week for some time on which the customary gatherings has been intermitted.

Business has been very quiet, but the trade is looking with considerable interest to the next auction sale.

### LONDON.

The *Timber Trades Journal* of July 18th says:—The dock deliveries recorded this week are still less on deals and battens than at the corresponding date of last year, but floorings and timber compare favorably, although the difference is very slight, 34 standards on the one and about 42 loads on the other. There are, of course, the overside deliveries to take account of, and of which the docks make no mention; these are known now to be much larger than they were last year. Besides this, we have the consumption at the mills, but this is almost wholly as yet confined to the pine trade.

The Quebec fleet are coming to hand unusually late this season, the first vessels arriving at some of the outports as much as a fortnight behind last year.

Spruce manufacturers are, according to last accounts, disinclined to press sales, in the full expectation that the demand on this side will lead to advanced prices, and they would lose by selling now. Prospective buyers will shortly come into the market if manufacturers hold, and this they appear now to be fully convinced of. For several seasons past there has been a surplus of logs, and with a decrease in the actual consumption, owing to depressed trade, has resulted in a greatly increased supply of manufactured stuff, and consumers have had the regulation of prices quite in their own hands. This seems now about to be changed, and spruce sellers evidently intend to improve the opportunity. Nature seems to have come to their assistance, and by withholding the usual spring rains the rivers have not risen sufficiently to float the logs, and many mills now find themselves without sufficient timber to keep the saws going. In the various markets of Europe there is a steady inquiry for American spruce, and with the present outlook it is impossible for the supply to meet the demand through the season. As we reported last week, there are mills shut down for want of logs, and the shortage in the log crop is now being fully felt.

Things here are showing some slight signs of improvement, due mainly to the determination of those holding big stocks not to press sales, as they have done, at unpaying prices. The knowledge also that the supply of deals and battens is less than last year has had its influence on the market.

The moderate sales this week are indicative of a desire to hold rather than continue to realize at such enormous sacrifices on the first cost as we have witnessed lately.

Pitch pine deals are more inquired for at the yards. We observe that goods of this description have not been put on the market quite so freely of late, which has had a beneficial result, though with trade still so stagnant the effect on values is not noticeable, but has effectually checked any further weakening. A curtailment of the public sale catalogue would help the price here amazingly. There are many who buy nearly all they require privately, and who would pay fair prices, but the low sale values recorded make them disinclined to give more even for better goods, and only such specifications as they require.

On the Atlantic side the freight to the southern ports are improving, but the introduction so largely of steamers into the St. Lawrence trade has ducks and drakes of the pine and spruce freights.

Things will not mend till the trade of the country is stirred up internally or externally; the spirit of speculation is dead, otherwise we should never hear complaints of the plethora of money at the banks. The demand for money is so far short of supply that three months' bills can be negotiated at ½ per cent., and even less, whilst the joint stock banks think of allowing no intest to depositors.

### TYNE.

The *Timber Trades Journal* says:—There is again a very long list of arrivals to report during the last seven days, perhaps the largest of any seven days during the present season. The bulk of the arrivals are deals and battens from the Baltic, but there are also several cargoes of staves from Finland, one cargo from Memel, and another from Riga, an early ship from Quebec with timber and deals, and five steamers from Christiania and Gothenburgh with cargoes or parts of cargoes, deals, battens, and boards. The great bulk of these cargoes are unfortunately finding their way into stock, so that stocks are now mounting up somewhat rapidly. So far the demand has not improved and if any change is preceptible it is for the worse. There are not many contracts of importance going forward, and housebuilding is not so brisk as before.

Shipbuilding too is as low as ever, and a great number of the yards, if not altogether, are very nearly closed. Saw mills are, on the whole, fairly well employed; fewer cargoes of prepared floorings have come forward this season, and mills have been to some extent employed in supplementing the amount required in this way.

### GLASGOW.

The *Timber Trades Journal* of July 11th says: Arrivals of wood goods at Greenock and Glasgow have been light for a week, but the list at Grangemouth, on east coast, is an unusually heavy one, comprising 37 cargoes (North of Europe goods and one pitch pine cargo), the aggregate register tonnage of the vessels amounting to 9,415 tons.

A comparison of the consumption at Clyde ports during quarter ending 30th ult. with corresponding period 1884 shows that apparently there has been same quantity of pitch pine used (about 12,500 logs.) Of Quebec timber the consumption of hardwoods, oak, elm birch has been about same as last year, 3,400 logs (lower port birch included), and of Quebec pine boardwood, yellow pine, and red pine the amount this last quarter has been 9,157 logs, against 10,425 logs for same period in 1884.

An auction sale of deals took place here on 8th inst. There was a good company, but a portion of catalogue was withdrawn, offers not being up to the views of the exposers.

In its issue of July 18th the *Journal* says:—The annual "fair holidays" are now being held here, during which labor is expended in nearly all our workshops, factories, and the shipyards in the upper reaches of the river. In most of the shipyards the holidays will continue for ten days, but a few that have urgent work on hand take only a week. The amount of shipbuilding work on hand, as compared with the state of trade at this time last year, is somewhat greater but no general improvement has taken place. While a number of yards are full, several of the othes establishments are almost entirely empty.

Since last writing there have been no timber auction sales to report, and none will be held till after the holidays.

In this week's import list is reported the first arrival of the timber fleet from Quebec to Clyde. This is about a fortnight later than the date on which the first sailing vessel from Quebec to Clyde came in last year.

The other arrivals this week consist chiefly of pitch pine timber and lower port spruce deals.

### WINNIPEG.

The *Commercial* of July 21st says:—The past week only adds another to the list of dull ones in this trade. There is literally nothing to be said about business in this line, except that owing to the excitement in the city, it was an even lower ebb than formerly. Dealers are now satisfied, that there is no chance of any hopeful turn of things this season, and have made calculations accordingly.

### Spruce Lumber in Maine.

A despatch from Bangor, on July 16 says:—An estimate of the supply of spruce logs the present pear, as compared with 1884 shows a shortage as follows:—On the Androscoggin. 10,000,000; Kennebec, 33,000,000 to 40,000,000; Penobscot, 30,000,000 to 40,000,000: St. Croix, 10,000,000; St. John, 30 000,000; showing a total shortage of 115,000,000.

**A Sad Case of Poisoning**

is that of any man or woman afflicted with disease or derangement of the liver, resulting in poisonous accumulations in the blood, scrofulous affections, sick headaches, and diseases of the kidneys, lungs or heart. These troubles can be cured only by going to the primary cause, and putting the liver in a healthy condition. To accomplish this result speedily and effectually nothing has proven itself so efficacious as Dr. Pierce's "Golden Medical Discovery," which has never failed to do the work claimed for it, and never will.

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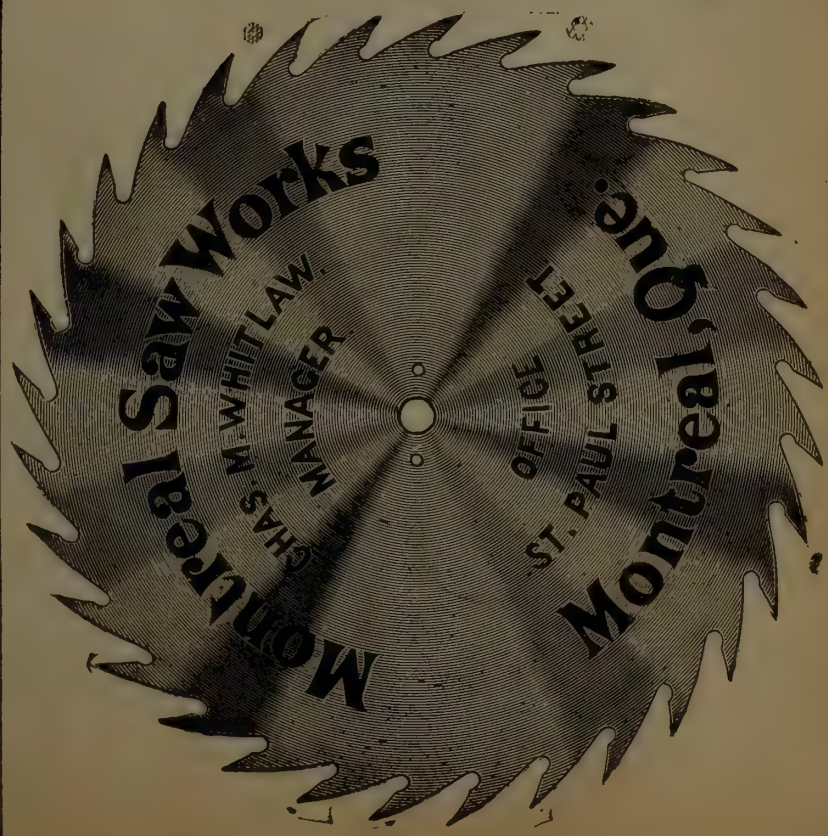
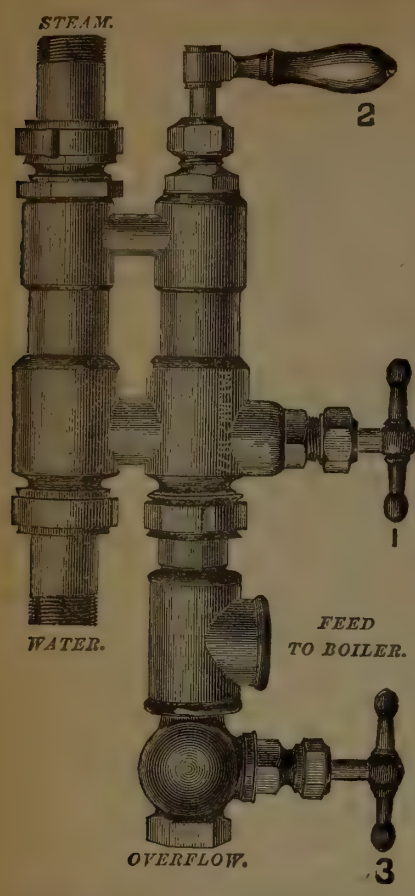



Catalogues and Price Lists furnished on application.

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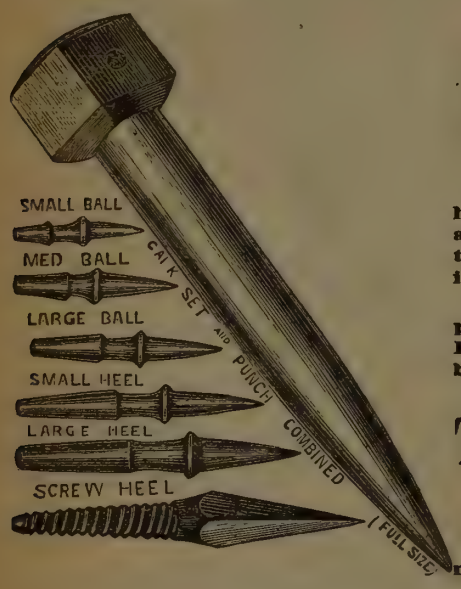


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# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

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# SAW MILL DOGS

## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

EXCELSIOR DOG.

Manufactured by HUGH GIBSON, CHATHAM.

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**Manufacturers of**
**Patent Lap-Joint Star Rivet**

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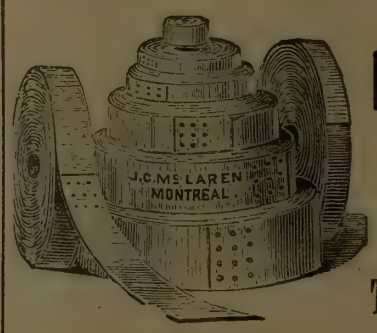


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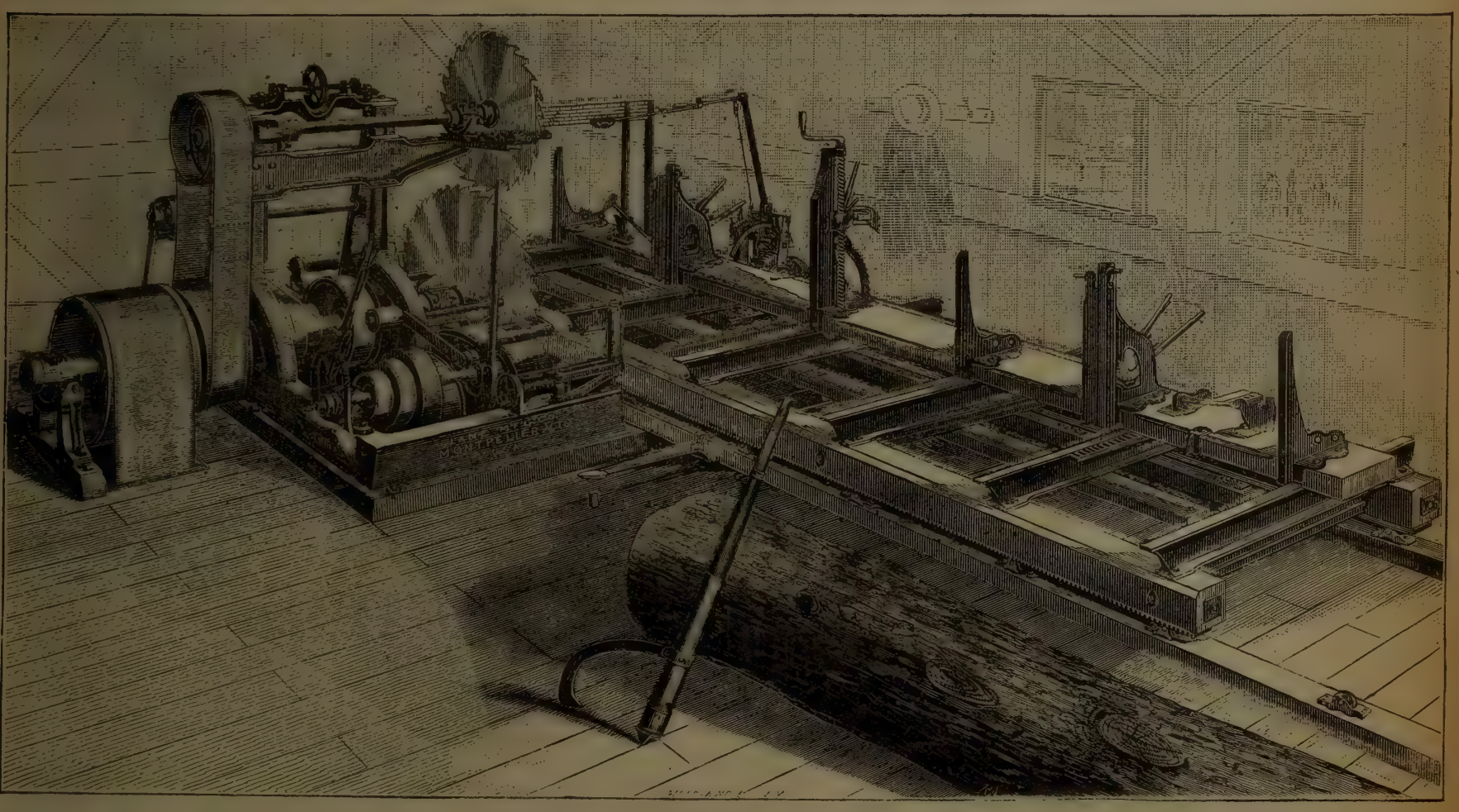

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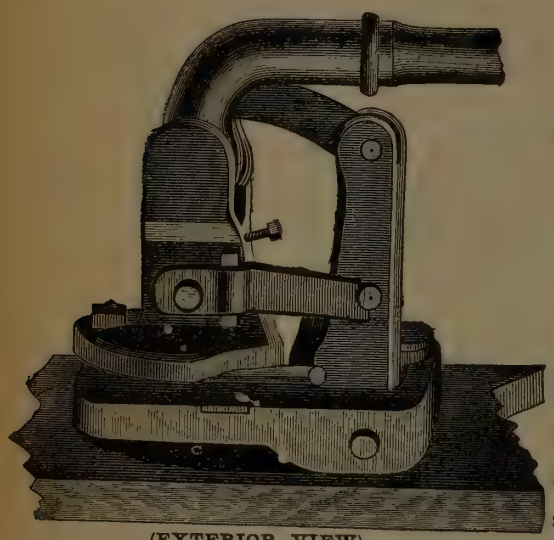

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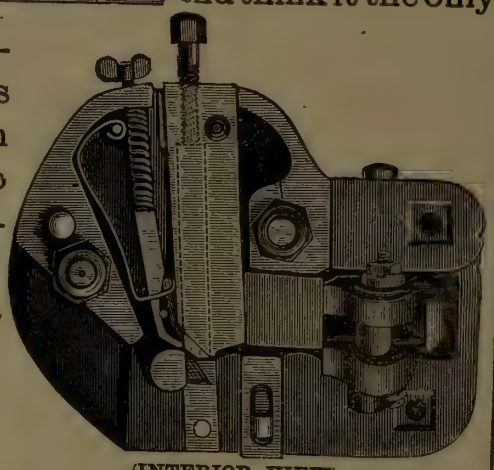
### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

*TRY IT!*

**Price $100, Cash 30 days.**



(INTERIOR VIEW)

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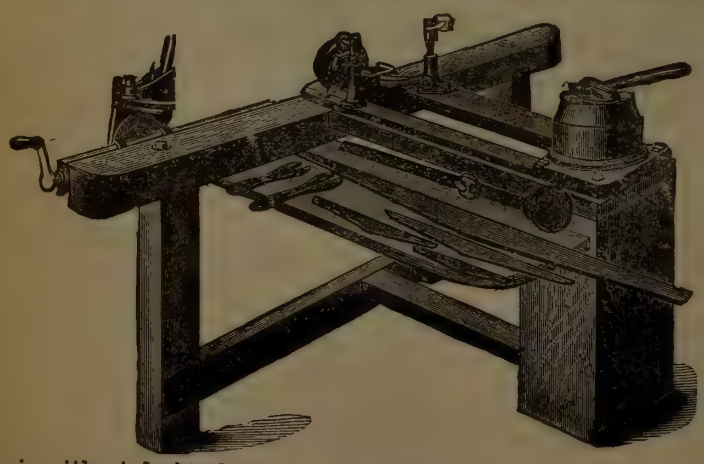

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This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition for the File Room.

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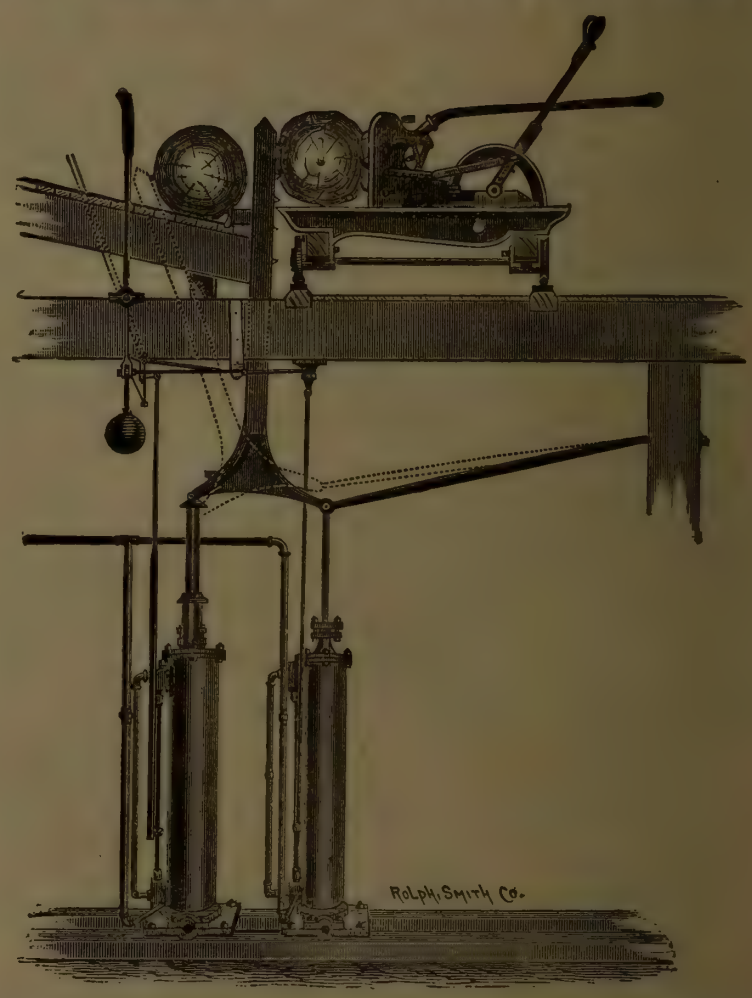


It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springimg Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

**We Guarantee each Machine in every Particular.**

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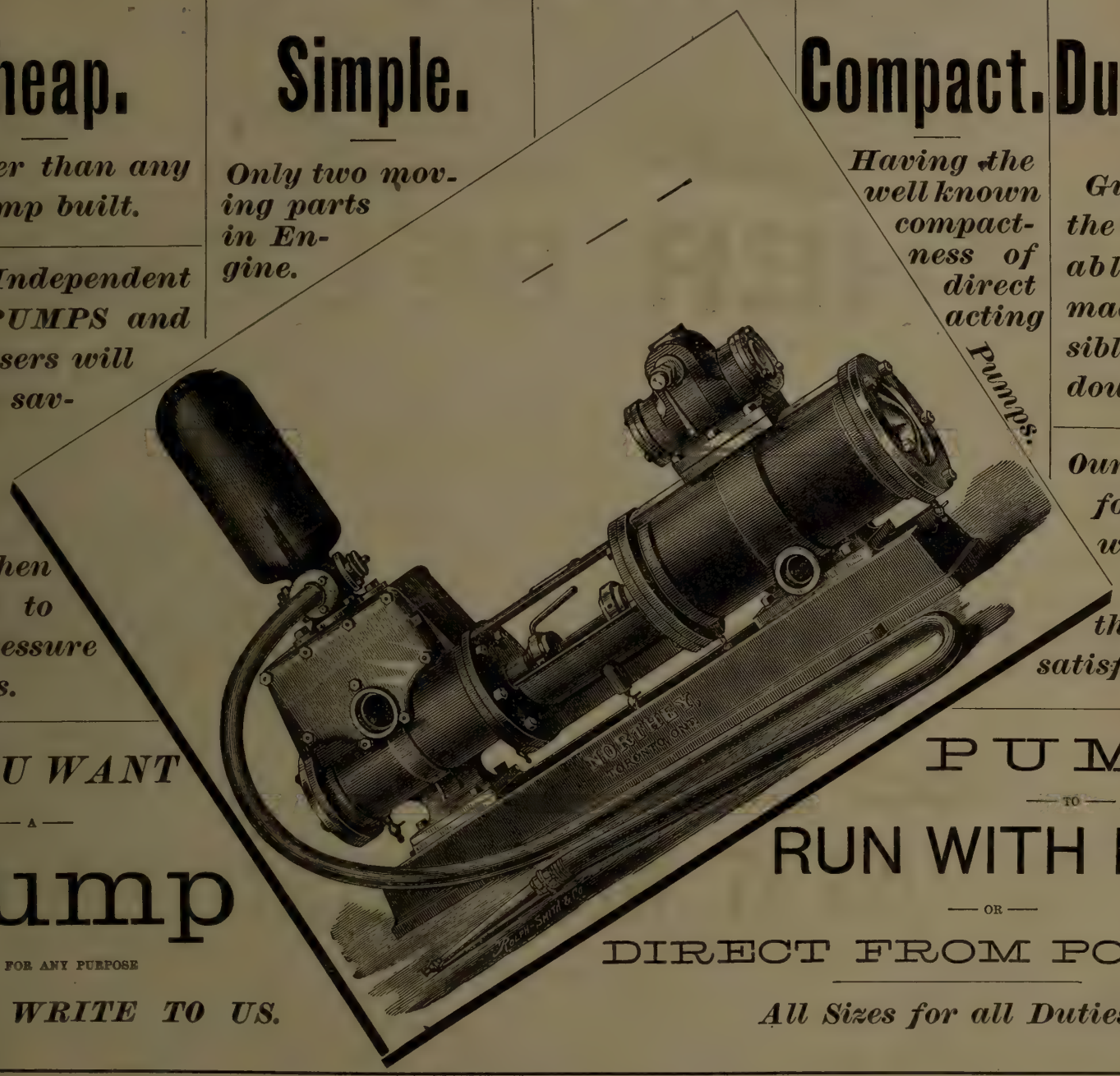
**Simple.**

***Only two moving parts in Engine.***

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***Our PUMPS for general water supply give the greatest satisfaction.***

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Nov. 13th, 1884.

*Harris, Heenan & Co.*

Dear Sirs,—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

TESTIMONIAL.

Page, Benny & Co., Canal Horse Shoe and Nail Works, Montreal, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

*The Best, therefore the Cheapest, Belt in the market.*
*Replaces, when used, all others.*
*More Pliable and Durable, especially at the splices.*
*Stretches but little, always retains it original width.*
*Superior for Cross or Double Belts.*
*Runs straight and true, does not start at the laps.*
*Single equals medium double.*

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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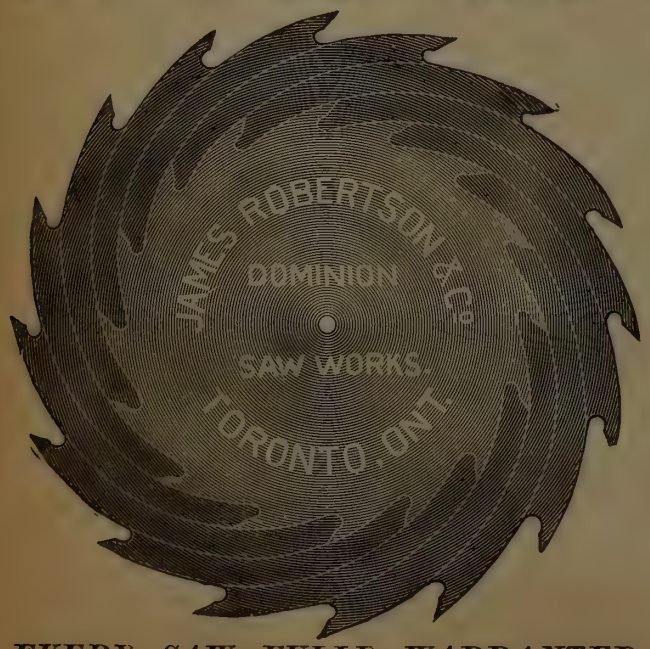
## JAMES ROBERTSON & CO.

## 253 to 267 KING ST. WEST, TORONTO, ONT.

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## Anti-Friction Babbit Metal

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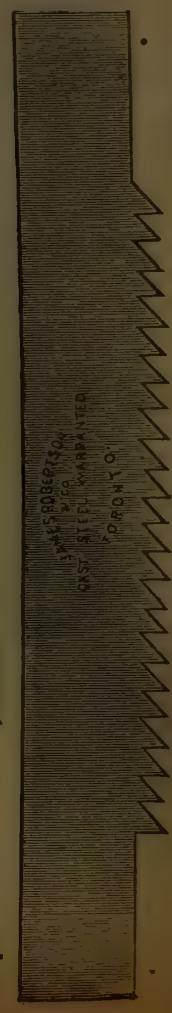


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VOL. 5. PETERBOROUGH, ONT., AUGUST 15, 1885. NO. 16

## PRESENT CONDITION OF THE LUMBER TRADE.

Lumber, that is sawn lumber, has not taken that boom this season, which some had so confidently hoped for. A walk around the Chaudiere mills discloses the fact that a very large stock is on hand, but although that is the case, the mills are going full speed and the mills are going full speed and the buzz and zip of the machinery seems never to lull.

"How is the market this year?" enquired a *Free Press* reporter of a prominent lumberman to-day.

"Well, not a great deal of difference from last year. In the better quality of lumber the demand in the States is very brisk and prices are good, but unfortunately, we have not much of that species of lumber to dispose of."

"What percentage of first-class lumber do you calculate is cut annually at the Chaudiere mills?"

"We are of course obliged to cut an inferior quality of logs every year, so that the quality now cut is not so great a percentage as it formerly was. Of all the lumber cut just now, I think only about 25 per cent. can be reckoned as good, and made ready sale."

"Then how about the inferior qualities?"

"There is just about enough made out of the inferior quality of lumber to pay expenses and if there is a margin at all it is very small."

"Did the strike amongst the mill hands at Bay City, Saginaw and other points in Michigan have any effect in the demand?"

"On, not any visible effect. The state of Michigan has so many mills in operation, and the strike was of such short duration that it did not make any change in the market."

"Then the trade is on the average fairly prosperous?"

"Yes, fairly prosperous, and we expect the demand will rather increase before winter than otherwise."

"Could you give an idea of the amount of stock carried by the different mills?"

"No, I could not, nor do I think any of the owners at the Chaudiere could give you any thing like an approximate estimate from the fact that sales are going on every day and sawing—one pile going up and another down—so that nothing like a fair estimate could be arrived at."

"What do you think of the square timber trade. I see that one Ottawa lumberman got 30 cents a foot not long since?"

"Yes, I believe he did. It was a good big price, but remember the average of 65 feet is far above the common. From all I know there is very little timber of that size to go down this year. The square timber is small in quantity this year and not big on an average. This part of the lumber trade is growing less every year. There are many causes. In the first place the lumberman has to go very far back, that is, very high on the streams, where he looks for the the making of a raft. Then he runs the risk of having his timber stuck, being more unwieldy than logs, and requiring more water to propel the square than round stuff. Then again of late years the market was very shaky and unreliable for square timber, the European demands having fallen off from some cause or another."

"The lumbering enterprise has seen its best days I suppose," prepounded the reporter.

"Oh no, I look to the day, and not a very distant one, in fact before the laps of ten years, when the lumbering industry of the Ottawa Valley will be brisker than ever."

"How will that come about?"

"Michigan, Minnesota and Wisconsin, the three Eastern States that are competing with Canada in the lumber market just now, cannot long hold out at the present rate, their forests are disappearing, everything is swept off, nothing too small is left uncut. Now this dreadful slaughter cannot last long, in fact, people who have taken the pains to probe into this matter say that at the present rate of cutting the three great lumber states of the east will be totally devoid of marketable trees, and the demand for lumber must naturally look to the Dominion to supply the market."

"Yes I have a notion that the future has a bright outlook and if men engaged in the industry feel the times a little slack, they will make up for it in the time when Canada will command the market east of the Rocky Mountains."—*Ottawa Free Press.*

## THE EASTERN SPRUCE TRADE.

Reports from the spruce logging sections confirm the statements made that the June rise had enabled all the mills to secure a good crop of logs, and already the various eastern markets have show a marked change in the general aspects of trade in that particular wood. The demand for spruce this season has been large, and previous to the June tide it was impossible for many of the mills to keep up with the orders received. The condition of the log crop aided by the unusual demand for the lumber, caused prices to advance, and remain firm at a figure somewhat in advance of values for several previous years, and even when the news was confirmed that the mills had been able to secure plenty of logs, it was claimed by many of the dealers that the market would not react, from the fact that but few of the yards had as yet been stocked, as about all the spruce which had up to the present time been shipped had entered into actual use in the buildings now in process of construction.

Under such a condition of the market, it did not seem at all probable that the spruce manufacturers would relax the profitable grasp they unquestionably held upon the future trade, but it appears that our estimate of the mill men was slightly overdrawn. Many of the eastern mills are running to their full capacity, and shipping their product to Boston and New York markets to be sold by commission houses, a fact which shows them to be cutting beyond actual orders, and the consigning of the oversupply to either of the markets mentioned has the effect of weakening values, and at the same time causing yard dealers to delay stocking up until they have been fully able to test the manufacturers' necessity for funds. In view of the fact that large quantities of spruce will be yet required to supply the actual demand, it seems foolishness on the part of a few short sighted manufacturers to blast the hopes of the entire trade by adopting a course, the result of which might, by ordinary foresight, be so clearly seen from the beginning. How much better it would be to go slow through the summer months and saw only for actual requirements, thereby nursing the trade until buyers find it actually necessary to make purchases, in which event manufacturers would be practically able to control the business in their own interests. It would be the correct thing for the spruce manufacturers' association to assert its influence, if it has any, about this time and show what it was organized for. It can do much towards regulating the product, and, that matter settled, the price will regulate itself to the satisfaction of all.

If the estimated shortage of 115,000,000 feet in the crop of spruce logs in Maine, as reported by certain large mill men, is correct, it seems to be the height of folly for even the smallest operator to consign any portion of his cut to be sold at auction, for, in view of the situation as outlined in the foregoing, the lumber will be wanted for actual use before use before the close of the season.—*Northwestern Lumberman.*

## ARTIFICIAL WEATHERING OF WOOD.

In an article on the preparation of wood for car finish, the *National Car Builder* mentions a Japanese method of treating wood for back grounds of ornamental work which it regards as well worthy of attention. It consists, it says, in removing the softer portions of the fiber so as to leave the remaining grain in high relief—a sort of artificial weathering by which the softer portions are worn away. The method has not been very clearly described, but it appears from the information given that materials like Dutch rushes are employed to scour or grind away the surface. The boards are sometimes quartersawed, but more frequently they seem to have been taken nearly through the heart and at a small angle with it. This gives long sweeping curves to the grain. After the required relief has been attained the wood is filled. The final coats seem to be a hard wax finish without a polish. For panels the effect is superb. As a back ground for metal work in relief, or for carving it would be difficult to find anything richer. To produce such work does not appear very difficult. Although the cost of such panels in Japan is very great, they need not be expensive here. The hand labor necessary for wearing down the wood may be easily replaced by machinery. The desired effect would then be obtained quickly as well as easily. Probably the same results can be obtained by the use of the sand blast or with steel brushes. The first car builder who introduces this style of ornamentation will have something not only unique but beautiful. In many respects it would be more attractive than the stamped leather and the Lincrusta, now so fashionable. As patterns for stamped leather, these wood designs would be very desirable, and if we cannot have the original, it might be possible to get an imitation by the electrotype process which would answer every purpose.

## GOOD ADVICE.

If you take up a trade, push it to perfection. As an apprentice, he prepared for many unpleasant things. To begin at the foot means more or less drudgery. Your inexperience will provoke ridicule, contempt, and sometimes abuse. Because you are a boy, any man in the shop may feel free to order you about. Be obstinate, sulky and dilatory, and none of them will care how long it takes you to reach a higher round in the latter. Be cheerful, obliging and civil, and you will find every man ready and willing to speak a good word for you and help along your skill.

When you have become a finished workman, bear in mind the well worn but truthful maxim that "a rolling stone gathers no moss." Steady work at fair wages is what piles up the dollars. A large share of our workingmen are ever ready to listen to glowing accounts of the high wages paid somewhere else, and they spend a good portion of the year looking for the place. Next to be settled in your mind, be economical. One of the chief causes for dissatisfaction among mechanics and laborers springs from the lack of good management and the fact that so many are spendthrifts. In every city in the land a large proportion of workingmen chew, or smoke, or drink. Their tobacco injures the system and robs the wallet. Drinks could be better replaced by cold water. Two dollars per week are taken to maintain injurious and selfish habits, and yet those who squander the most are loudest in their complaints about hard times.—*Detroit Free Press.*

Two guards at the St. Vincent de Paul Penitentiary have been suspended and three others fined one month's pay as the result of an investigation into charges of insubordination and misconduct preferred by the Warden of the institution.

## THE SAGINAW VALLEY STRIKE.

An unbiassed consideration of the strike which has been so tenaciously adhered to for five weeks past on the Saginaw river, must lead to only one conclusion, that it was ill advised in its inception, and that it has resulted thus far disastrously to the labor element, and worked to the direct advantage pecuniarily as well as otherwise to the mill owners, as we shall endeavor to demonstrate by as short statement a statement as possible.

First, we assert that the strike was ill-advised in its inception, because a moments consideration, with the very smallest information in regard to the general situation would have convinced the leaders that it was but a very short time until the 19th of September, when the ten hours law would take effect, and they would then have law on their side with which to enforce their demand. Now, while the *Gazette* sympathizes with the employes so far as their demand for ten hours a day is concerned, we cannot permit our sympathy to blind our eyes to facts which are undisputable; hence we believe that at no time for ten years past has there been so inopportune a time for a strike of the mill employes, for the reasons following: In the first place, the docks on the river were crowded with lumber, which was sluggish in sale, and a stoppage of production was the most desirable thing in the interest of the producers, because it would enable them to dispose of their surplus stock and clear their yards for future operations. Then again the curtailment of the log crop last winter was so great that the mill owners could well afford to let their establishments remain idle two months if necessary, and could thereafter cut all the logs desirable for their own convenience and advantage; and even if they do not cut another log this season, the streams tributary to the Saginaw river will have no more logs remaining back than usual. Again the leaders and advisers of the labor element, might with very little discernment preceived that a curtailment of 300,000,000 feet of lumber at this time, means a curtailment of the same amount of logs the coming winter, which fact must necessarily militate against the strikers at the very worst season of the year. Thus much of the ill-advisedness of the strike in its inception.

Now for the results: A careful computation of the loss in wages to the mill employes during the five weeks of the strike places the amount at $200,000. This is an enormous sum to be withdrawn from the support of these men and their families; and it means also $200,000 taken from the business interests of the cities on the river, and its baneful effects are already peceptible in business stagnation in every city and settlement all along the line. Besides this it will place the labor element in a distressing situation during the winter months, when absolute want and suffering will be there lot beyond anything ever heretofore known.

On the other hand the advance in lumber at $1 per thousand, occasioned directly by the strike, will amount to at least $400,000 to the pecuniary advantage to the mill owners. In addition to this, the advance in the price of salt already reported will net the mill men at least $200,000 more. It therefore becomes apparent that the results have militated disastrously to the laborers while the mill owners have been benefitted much more pecuniarily than they could possibly have been by running their mills.

In the next place what has been accomplished this far: Two mills are running on the ten hour plan with no reduction in wages; six mills are running ten hours with a reduction of wages, and eleven mills are running eleven hours, the same hours and terms as when the strike ccmmenced. The above cannot be considered a very gratifying result for the strikers, from the most rosecolored view possible.—*Lumberman's Gazette.*

## MANUFACTURING HARDWOOD.

There are many manufacturers of hardwood lumber in the South, who apparently fail to consider the importance of becoming thoroughly acquainted with the demands of the markets to which they ship, not only in point of quantity, but in reference to quailty and saleable sizes. On either slope of the range of mountains which separates the states of North Carolina and Tennessee are a great many mills, and their production foots up many million feet yearly. Very few of these mills are operated by men who have ever done business outside the county in which they live, and judging the outside world by their own immediate surroundings, they are led to suppose that if a farmer in their locality can build a house with log run lumber, a man in New York can do the same, and hence they are satisfied in their own minds to keep on sawing inferior lumber. The markets in the east have for several years been heavily overstocked with various kinds of hardwoods, inferior in all the details that constitute first class lumber. The timber originally was good, but the saw mill man has spoiled the product, by his ignorance. It is impossible to manufacture good lumber without the aid of good machinery, and unless a mill is equipped with a first-class saw, and a gang-edger, it is certain that the production will not prove first class in point of quality. After the lumber is manufactured, it is necessary to pile it in such a manner as to dry it out bright. Large quantities of well manufactured lumber are ruined by a lack of knowledge as to sticking. The sticks, or crossers, should always be placed exactly over each other, and never more than four feet apart; the crosser on the front of the pile should be placed about one inch from the end of the board, as that will allow sufficient space for the dampness to collect, and in the process of drying the boards will not check. The entire pile should be a little lower at the back than at the front, to allow rain to follow the inclination. It is better to stick all hardwoods in six foot piles with a space of at least one foot between them, which allows a free circulation of air, and prevents the lumber from staining. This latter feature is very common in poplar, and is caused by a neglect of the requirements mentioned. Such neglect permits the rain to soak into the lumber, and as the air does not circulate around and through the piles, the result is the sap turns black, and all pieces thus affected become culls, even if otherwise perfect. Large quantities of such lumber have been shipped to the East, and have proved a stumbling block in the way of the seller, who had really good lumber to dispose of, as the oversupply of poor lumber affected the price of the good. There is a class of men in the South, who go roaming around the country buying up lots of inferior lumber, for which they pay but a very small price; such lots are generally secured at interior mills, where the mill man never sees a trade paper or even hears from the outside business world, and consequently does not known the real value of his product. Having secured enough of such stock at any given point to load a few cars, the buyer sends it to some commission firm, and draws against the consignment, in many instances for all he paid for the lumber, and then makes the life of a commission man miserable by harassing him to sell at a certain price and remit. Until something is done to prevent the manufacture of such large quantities of poor hardwoods, it will be impossible to build up the markets. Perhaps the best method to pursue is to refuse to buy such stock, but on that point individuals would doubtless disagree to such an extent as to make it valueless.—*Northwestern Lumberman.*

## HOW TO CURE A HOT BOX.

In the few remarks that I made I committed myself to a task which is, perhaps, one of no small proportions; but as hot boxes, like doctors' patients, are sometimes cured, there is hope that we may be successful. I will say, however, that there are sometimes extreme cases which cannot be cured except by the substitution of a new box, either longer, or larger, or different material; but, in cases susceptible of treatment, would say that if we can discover the cause of the heating, the cure is generally speedy, provided the person in cuerge knows sufficient to administer the remedies, and in proper doses.

One of the most common causes is a lack of oil, or a poor quality of oil, (and at this juncture I will say that the oil subject has overgrown me. I remember my paternal ancester used to have a bottle with a feather and cork attached, and which smelled abominally; but it had one redeeming feature, it was a lubricant. It had no fire-test attached to it, no summer or winter oil about the bottle, neither was it golden machine oil, it was simply an every day oil; it neither froze in winter nor ran like water in summer. My memory may be at fault, but I never remember that oil having to be punched out of the oil holes with a steel punch. It may be just possible that we are on the threshhold of some discovery where, by some mysterious scientific process, a new material may be evolved that will supercede leather). One common cause of a hot box is that the shaft or spindle is out of round or slightly crooked. In this case the best remedy, and in ninety cases out of a hundred the only remedy, is to take out the shaft and have the bearing turned true in the lathe. One good way is first to get the shaft or spindle well centered—most mechanics know or ought to know that good centers are always drilled—and then to take a very sharp tool and go over the bearing with a very light cut, and repeat the cut if necessary, until the shaft is round. Do not file the bearing; finish with the tool. If the job is done right it will require no filing, and not, like one Aleck filed, be a source of trouble.

One very frequent cause of boxes running hot is that by wear or grit or other causes the bearing will have grooves running around its circumference. In this case it is difficult for the oil to pass by these grooves and projections, and although one end or the middle of the bearing gets oil the other portions are left without. In this case I have found it a good good plan to file the bearing in the direction of the length of the shaft, but never in the direction the shaft runs, this is, following the circumference. This will give relief to bearings when almost everything else has failed. This recalls a little crank pin trouble which occurred within one hundred miles of Minneapolis. The crank pin had a trick of getting very warm, indeed, and the throttle opener concluded something was the matter, and on taking off the brasses he discovered that they were worn in grooves as though with sand or grit; and, perhaps, like the homæapathists, he had concluded that like cured like, he got a piece of sandpaper and very industriously sandpapered those grooves one holy Sabbath morning. I did not stay to learn the effect of this treatment, but I think that a plug of tobacco inserted in the smoke stack would be just as efficacious.

There is one thing about journals and boxes that has not been spoken of very much, and that is the circulation of the oil in the box. If the oil circulates throughout the box there is less danger of heating. I have got good results in habbitting boxes, especially solid boxes, by taking paper and placing around the shaft, and then taking stout string and tying around the paper in the form of a thick thread, letting the string go right and left. This has a tendency to cause the oil to circulate back and forth througout the bearing, thoroughly lubricating every portion of the bearing. It is always better to have a box, especially a half-box, to bear on the bottom and not on the two edges. A box that is cast or bored on a smaller circle than the shaft is sure to get hot.—*Cor. Wood and Iron*

## THE RETAIL TRADE IN NEW ENGLAND.

Ten years ago the retail yards all through New England obtained the bulk of their stocks through the wholesale dealers located in the East, principally Boston, although a portion of the trade went to Providence and Albany. The yard trade of New Enuland is in many respects unlike a similar class of trade in other sections, and the question is often raised to whom does that trade rightfully beloug? The eastern wholesaler, by reason of precedent, claims it, and the manufacturer in the West who solicits the yard trade is looked upon as an intruder. It is claimed that agents of large firms in the West solicit the trade of the eastern wholesaler, and then do the same with the yards, which amounts to soliciting the customers of the former. On moral grounds, and as a matter of policy, such action appears unbusinesslike, but the ground of argument is that the only difierence existing between the wholesale dealer of the East and West is solely in the location of headquarters, and trades between them must be viewed as any other transaction wherein it is supposed a profit can be made by either party. There are several hundred retail yards scattered through New England, but outside of Boston there is few yards that can be classed as extensive. Probably New Haven, Conn., has larger yards than any other city in that section, although Providence, R. I., and Portland, Me., have several extensive ones. Each locality has its peculiar whims in the matter of making purchases; for instance, the yard dealers along the Connecticut shore buy largely in Albany, shipments being made by water, and while the Hudson river is open to navigation it is a difficult matter to sell any lumber in car load lots in that section. There are several wholesale dealers in Providence who supply a portion of the trade of that city, while Boston firms and concerns in the West obtain more or less orders all of which are delivered by rail. The Portland market was formerly supplied largely by Boston firms, but since the advent of numerous drummers from the West took place a portion of the trade has been lost. The same statement is true of the yard trade in Springfield, Worcester, and Lowell, and each year the orders of such yards are lost to local wholesalers, and placed with the manufacturers in the West. It is not claimed that any better trades are secured by this method, but somehow a feeling prevails among the yard men that they are more independent in making direct purchases from the manufacturer.

The army of drummers that have for two years invaded the New England territory, has had the effect of reducing prices and complicating grades, and the attempt of shippers in Buffalo, Toledo and Chicago, and numerous other western markets, to harmonize grades to meet New England notions has caused many disputes, and undoubtedly nursed the practice of making discounts, until it has become almost second nature to some buyers. The New England yard trade in the aggregate is large, but is scattered over a large territory, many of the yards taking an arbitrary rate over Boston, and it is at such points that the fiercest competition has arisen. To meet it the western shipper has conceded the arbitrary, and made regular Boston rate prices; of course this precedent has had to be met by others, and the yards so located have profited by the concession. These little features of New England trade, although small in themselves, serve to keep the market in an unsettled condition; but as the "go-as-you-please" element appears to predominate it is doubtful if agitation will better the matter.— *Northwestern Lumberman.*

## FAST SAWING.

Staples & Covell's mill, at White Lake, Mich. with a single circular mill, cut 84,098 feet of white pine lumber in a ten hours run.

A Beaumont, Texas, paper says that in 1879, one circular, with a Prescott steam feed, in the Reliance Lumber Co.'s mill, at that place, cut 104,000 feet of lumber, board measure, in ten hours.

On Friday, July 3, the Lyman Lumber Co., Necedah, Wis., in a six hours run, cut 101,661 feet of piece stuff, mostly two inch, on one rotary and one 42 inch Wickes gang.

J. J. McDonough's mill, at Surrency, Ga., cut, with one saw, from "Sunrise to sunset," which is a working day in a Georgia saw mill, 176,790 feet. This was accomplished three years ago.

The Hudson (Wis.) Lumber Company cut 84,965 feet in one day with one circular, and claims it can cut 100,000. *Lumberman's Gazette.*

**A Wonderful Freak of Nature**

is sometimes exhibited in our public exhibitions When we gaze upon some of the peculiar freaks dame nature occassionally indulges in, our minds revert back to the creation of man, "who is so fearfully and wonderfully made." The mysteries of his nature have been unravelled by Dr. R. V. Pierce, of Buffalo, and through his knowledge of those mysteries he has been able to prepare his "Golden Medical Discovery," which is a specific for all blood taints, poisons and humors, such as scrofula, erruptions, ulcers, swellings, tumors, and kindred affections. By druggists.

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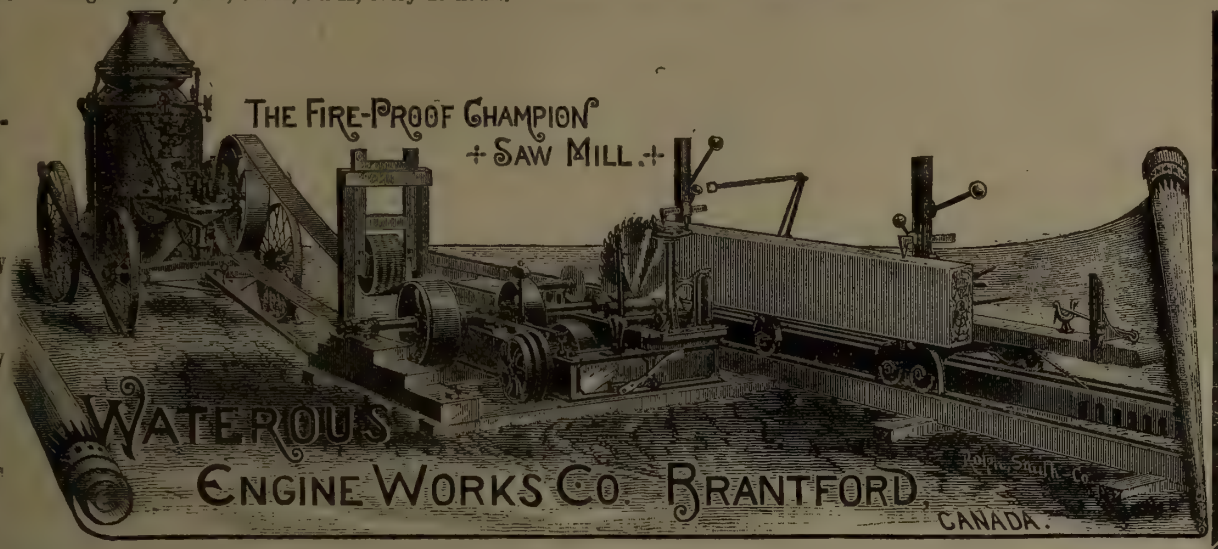


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### WOOD TURNING.

It seems like a very simple matter to come the free hand act in paring down a piece of work in the turning lathe and bringing it up to a shining finish, if the careless manner in which the tools are held and the rete the cuttings fly are anything to go by. The workman seizes a piece of stock, places it between centers while the lathe is still in motion, and the work starts off almost in its very central line of rotation, stirring up quite a breeze from the four corners of the square piece of stock, and just clears the rest from which the tools are to operate. The gouge sets in first and pares down toward the centre, setting back each stroke for the length of chip, till the word is gouged out, when, with a few sweeps the surface is left smooth and cyclindrical. The parting tool reaches the lowest place in each hollow of any bread that is to be made to make room for the clearage of the cutting, and the gouge once more passes right and left from the brink of each bead, with a few delicate sweeps in the hollows, and the work is ready for the next piece, unless it is to be smothered op with sandpaper held on the work while it is backed up wiih shavings to keep the hand from burning. The tools rest as much on the work as on the bed of the lathe, and the stock is not torn to pieces by scraping with a a chisel. There is a principle for every mishap that is to be found in any part of the process; if the gauge is being drawn forward with a lot of clearance beneath the cutting edge while the tool rests on the opposite side, an increasing spiral convoluted pitch may be attained contrary to expectation, though the principles of this action are as definite as the principles of falling bodies. If the squaring up is to be done with a chisel, where the bevel is on one side, there is every condition that is needed to strike out for parts unknown as soon as the cut leaves the extreme point in the cutting edge. Turning, like any other work, where we must cut across the grain, must have some means for the chips to leave, or they will cling to thrash on the rest, or to break into the finish of the work. It requires but a small effort to hold a tool in turning when it is held properly, but it will need the assistance of a tool post if the cutting edge is running in another direction, if a shearing cut is what is wanted. It will be well for those more acquainted in other departments to resort to scraping when in need of a mallet or a few handles for tools.—*Lumber.*

### COAL DUST EXRLOSIONS.

George G. Andre says: Had the German Commissioners not demonstrated the possibility of bringing about an explosion of coal dust by the agency of a shot, an accident that happened on the 7th, ult., at the Nœux collieries in the Pas de-Calais, France, might have been adduced as evidence of that possibility. As it is, we may cite the accident as another illustration of the demonstrated fact. It appears that a shot was fired in a working place, the atmosphere of which was laden with coal dust without fire-damp even in a minute proportion. The result was an explosion of considerable violence, the inflamation of the dust extending upward of 150 yards. Three men, who were at work in the tram road, were killed. This explosion is utterly at variance with the conclusions of the French Commissioners who recently reported on the subject that of coal dust explosions, and strikingly in accordance with the facts observed by the German Commissioners during their experiments at Neunkirchen. At these Neunkirchen experiments, it was observed that a tamping of small coal or a barbonaceous clay greatly lengthened the flash from a blownout shot. These long projections of flame have been the cause of several serious accidents lately in France. With the view of removing this source of danger, ac ommittee of inquiry has been formed.

The rain falls not alike on the just and unjust, for the simple reason that the unjust usually has the umbrella belonging to the just.

### ITALIAN TRADE WITH HALIFAX

The King of Italy has consented to the transfer of the royal Italy consulate in the Dominion of Canada from Montreal to Halifax, as being the most eligible residence and the principal Atlantic winter port of Canada. William Wingfield Bonnyn, C. E., of this city, has been appointed royal Italian consul in the Dominion of Canada, which jurisdiction and authority over the-vice consuls and consular agents and delegates at Gaspe Basin, St. John's Nfld., Montreal, Quebec, Toronto, and St. John, N. B. It is stated that the above appointment is likely to be the harbinger of a greater commercial intercourse with the Kingdom of Italy, and that in January last Mr. Bonnyn opened negotiations with Florio Rubattino & Co., (the Italian Royal Mail Steam Navigation Co.) at Genoa and Palermo, now trading between the Mediterranean ports and New York, to call monthly or bi-monthly at Halifax, and with shipowners at Genoa, Leghorn, Naples, Messina and Palermo to ply sailing vessels bringing Italian produce, viz., hemp olive oil, Italian soup paste, maccaroni, liquorice, green and candied fruit, marble in blocks and slabs, vine gar, madder root, sumac, boracic acid, &c., and taking fish and minerals from Newfoundland, and dry codfish, herring, West India molasses and sugars, refined sugars, hides, wool, lumber, fish oils, etc., from Canada via Halifax. The realization of such an advent may indeed prove of great benefit to Halifax, the acknowledged winter port of the Dominion, and it appears that Italy is determined to be in the foreground and her flag in this city and port as the pionee of a Mediterranean trade will be welcomed.—*Halifax Herald.*

There are many in this world whose whole existence is a makeshift, and perhaps the formula which would fit the largest number of lives is "adoing without, more or less patiently.

Subscribe for the CANADA LUMBERMAN.

### NEW TELEGRAPH POLES.

Mr. F. N. Gisborne, superintendent of the Government telegraph service, has invented a new telegraph pole, a practical test of which was made in Ottawa a few days ago. The new pole is constructed of tubular malleable galvanized iron, and is only 2¼ inches in diameter at the bottom end, and 1½ inch at the top, weighs less than 50 lbs., and, as demonstrated in the test, is capable of standing a greater strain than the ordinary timber pole. The bottom of the pole sits in a claw plate about 6 inches square, upon which the earth is packed to a height of 2 feet, when another claw plate, through the centre of which the pole runs, is put into place, and the earth packed upon it 1 foot, to a level with the ground. The claw plates tend to grip the ground and make the pole absolutely solid immediately, a result only accomplished with the old style poles after they had been in the ground for at least a year. For the test made yesterday heavy number six Government wire was strung upon the poles and subjected to extraordinary strain, but without moving them in the least. The proceedings were watched with interest, and Mr. Soper, electrical engineer, who was present, pronounced the invention a great success and one of the utmost importance in telegraph construction. It is the intention to use the new telegraph pole in the construction of the Government lines in the Northwest where the cost of transporting wooden poles is very great, the conveying of fifty costing as much as two hundred and fifty of the new poles, while the latter being made of galvanized iron and non-corrosive are calculated to remain good fifty years as against about ten years for the former.—*Ottawa Citizen.*

A Paisley publican complained of his servant maid that she could never be found when required "She'll gang ooto' the hoose," said he, "twenty times for ance she'lt come in.

The worse men are those who stir up others to do evil.

## RUNNING A MILL.

What kind of a time do you have when you buy a new planer? You get it safely unloaded in the mill, set where it is to run and levelled up.

You start up with smiling countenance thinking how you will rush out that 10,000 feet of flooring in a very short time. Before you have run half an hour, a box begins to heat. Oil is put in. Black lead is used. Sulphur and soapstone have their innings, but all fail. It still heats. You shut down and take out the cutter-head, but can't find anything to cause the trouble. You put back the heads screw down the caps, and start up again, but it heats again. You loosen up the caps and let it run so. No use. You get mad; yank out that cutter-head and go for the bar with No. 2 sandpaper wrapped around a stick. After a few minutes' vigorous work, you think it has been rubbed enough, and start up again. It heats worse than before. Then you swear by all above that you will fix that box; and you do.

No. 40 emery is put into it and it is ground until it fits the journal. It smokes and gets hot. You put in oil and grind away. "Now I've got it," you say, and so it proves. You clean up that box and the arbor, wipe them nicely, start up and plane a board. It heats worse than ever before. You let it heat, run as long as possible, and then shut down to let it cool off. The other box has begun to heat, and that is ground down, too.

Now, every time the operator wants to start up, he finds the cylinder stuck and has to pry it up with a lever before the belts will start it. This planer will always heat up and will not run 500 feet of lumber without stopping to cool off.

The only remedy is to send the head to a lathe; have it turned and finished; knock the babbitt out the boxes; level the planer; block up the head in place as it is desired to run; level, of course, to correspond with the bed. Warm the boxes if it is cold weather by a gas-jet, or if no gas is available, keep a blaze under them with kerosene oil and cotton waste. Stop all leaks at the ends of the boxes with putty and twine or by some other means. Melt the babbitt metal and keep is covered with dirt, ashes, powdered charcoal, or a piece of sheet-iron to prevent oxidation. Heat it just hot enough to scorch, not burn, a white pine stick. Whittle the stick so as to expose a new surface every time you try the metal. If too hot, cool to the right degree before pouring. Pour quickly with a steady stream, no matter if it runs over a little. Never stop pouring after once beginning. Be sure and have plenty of babbitt in the ladle before you begin to pour. It spoils a box to run short of babbitt and have to pour in more to fill the box. Trim up the box and scrape it to a fit. If this had been done in the shop, the box would never have heated. This scraping machine belongs to the machine manufacturer. He would do it every time if customers would pay for it without kicking. They think it "economy" to get $5 or $10 off the price of a machine, so it is built just $5 or $10 cheaper.

The boss wanted a cheap planer and he got it. He saved $5 on the cost of his machine and it cost him $20 to save that $6. When you get hold of one of these machines go to work and fit the bearings. Don't try to "let her find her bearings" by running all loosened up for two or three days. If you can't make that planer run with caps screwed down solid, boxes all tightened up, and everything snug, then you should get a new planer, or the boss should get a new man.

Take a half round file and grind off the teeth. Grind both edges sharp and whet a nice edge on them. Don't have any adjustable boxes in the shop. An "adjustable" lives up to its name and needs adjusting six times per week. Put your boxes just where you want them, screw up tight, rivet down the bolts, put a good head on them, and you will have the best adjustable box in the world. Put a little red lead on the journals and try them in their boxes. Turn the cylinder two or three times, then take them out and see how much lead is left in the boxes. Put three spots in one and two in the other, then take your sharp edged file that your have made into a scraper and scrape off the red lead. Take the file in both hands and try to cut out a nice clean chip instead of just rubbing of the red. For a very small box, the round side of the file must be used, but for large boxes the flat side works the best. Make a drawing cut by moving the scraper endwise while drawing or pushing it.

When the red spots are all worked off, put the cylinder back again and make new marks. They are larger this time. There are more of them, too, keep scraping and trying the journals until you get a good bearing. Put on the caps and scrape them just as nicely as you did the boxes. Don't say that the caps are "good enough" and "don't amount to much." If you don't think they amount to anything, just take them off and run without them for half an hour.

The very best packing to put between boxes and caps is paper. Cut it just the right shape and in just enough to enable you to screw the caps down solid. If there is not quite enough, don't slack the balls back a quarter turn and "let it go at that." Put in another thickness, then you can start up with everything tight and solid, and nothing will heat.

The man who buys a high speed engine expects it to go right to work ten hours a day, and no heating is expected. The bearings of that engine have been fitted. They have been scraped. There is none of the "find her bearing" there, for that idea is a mighty humbug.

Sometimes a man builds a little saw mill on a little stream of water, and then afterwards finds it necessary to enlarge. He put in another waterwheel and then adds a lean-to or an L to his mill. Pretty soon he may be forced to enlarge again, and has to put in steam to run his mill during low water. When the original building begins to be dilapidated, or the whole thing burns up, then our miller thinks of rebuilding. He gets up a nice mill in his mind, and tries to build one like it. He pulls out his two or three small waterwheels and puts in one big one, and rigs his shafting to connect his steam engine with his water wheel.

Here is where our man has missed it. There are lots of days during a dry season when a saw mill is run with one or two machines, or 8 or 10 horse power, and then he finds that it requires almost as much if not more water to get ¼ its power than it does to run the wheel at whole gate. This is the trouble with the turbine wheel. There are many mills in the market which will deliver 80 or 85 per cent. of the water used, but not one of them will work well with a partial gate. It is better for a miller to put in a number of small mills than one big one, and he should also be able to connect a wheel direct with certain machines which he desires to use separately.

Connecting steam and water power together is a very good plan under most conditions, but they should be so connected that when the machines are running idle, the waterwheels run engine instead of the engine running the waterwheel. By this we mean, run the water wheel faster than the steam engine. If you connect the wheels to drive the main shaft 300 revolutions per minute, speed the engine so that it will drive it 295 or 6. If the engine governor is very sensitive, and cuts off steam with a variation of one or two revolutions per minute, then you can speed it 298 or 9 accordingly. When so connected, the water wheel will run the engine fast enough to keep the governor closed when no work is being done. When the load is put on, the speed slackens up a little and the engine gets a chance to do something.

If, under common conditions, we were to design a steam plant to supplement water power, we should divide the water power by putting in a number of small turbine-wheels, and utilize the steam in the same manner by putting in a number of small high speed steam engines, connecting one direct to each separate machine, thus doing away with tons of heavy shafting, big pulleys and costly belts.

An ordinary mill running an 8 foot band saw, a 42 inch circular, 2 veneer saws, a veneer cutting machine, and one or two bench saws, will need shafting enough to consume 35 or 40 horse power, enough to drive any two machines in the mill if connected direct with a small high speed engine.

After our miller got his mill rigged with a big waterwheel and a big engine, he found it necessary to extend his buildings again and put the logs 300 feet from the boilers. He built a big sawdust conveyor to carry sawdust from his saws to the boiler, kept a man wheeling slabs about all the time, and finally came to the conclusion that his fireroom was in the wrong place. He moved his boilers, carried steam 200 feet to his engine and saved lots of trouble with sawdust, for it fell directly into the new fire room. He saved the wages of a slab wheeler, but when the engineer started up on cold winter mornings, that long steam pipe would run a big stream of water for a long time and it was well covered, too.

Finally, our miller, "got on his ear." He was tired of stopping every machine in the mill to mend one little saw belt, or running steam and water yoked together like an ox and a mule. He tore his mill to pieces again, sold off his shafting and water wheel, steam engine and long pipe, and put in five little water wheels, and a lot of nice light shafting. His mill runs well now. He doesn't use half the slabs he formerly needed, for the sawdust pile almost runs the mill. There is no more work in the wheel pit driving spur gears into play, or putting on big belts, or letting down binders before starting up. If Sam wants to shut down and file his saw, he need not shut down the whole mill while he lifts his burden and takes of his belt. He doesn't have to do the same thing when he starts up again. No, Sam stops his little water wheel, or shuts down his engine, files and starts up again without fuss or delay.

Put in your steam and water power independent of each other and every other machine and your never will have to shut down the whole mill for all hands "to keep still while you stir."
*James F. Hobart in Saw Mill Gazette.*

## A QUEER SUPERSTITION.

Abram Reed, a farmer living in Beaver township, Pennsylvania, cut down a large oak tree on his farm, and in cutting it up he found embeded in the trunk, seven or eight feet from the ground, a small glass bottle and what had the appearance of a lock of hair. The bottle had been inserted in a hole in the tree made by an auger, then a pine plug was driven into the hole over the bottle, the hair also being held in the hole by the plug. The bottle was corked, and contained a colorless liquid. Over the plug had grown six solid rings of wood, besides a thick bark. There was a superstition among the early settlers, and it is held by many of their descendants, that asthma and other affections could be cured by the victim standing against the tree and having a lock of his hair plugged in it while the hair was still attached to his head. It must then be cut off close to his head, and the afflicted person walk away without looking at it or ever passing by the tree again. While the use of a bottle was not included in this treatment, it is believed that the one with the hair discovered in the heart of the oak tree was put there in the early days of the settlement by some believer in the superstition to cure an ailment of some kind.—*Lumber World.*

## THE MURRAY CANAL.

The work on this piece of public work is progressing as rapidly as such tedious undertakings can. The section of the canal affording the most interest at the present time, is that at which the piers are being built upon which to rest the swing bridge for the Central Ontario Railway. On the east side of the work is a wide dyke, which holds the water of the canal back and affords a roadway over to Consecon. About three hundred yards west of this dyke is another which, also, is a barrier against the water. This embankment supports the track on the Central Ontario Railway. Between these two huge sand dams is an excavation, in some places over 18 feet deep, and the width of the canal. It is in this space that the railway bridge is being constructed. The dams or dykes referred to are to keep the water back that the men may prepare the foundation for and construct the solid cut stone piers. Men watch these dykes unceasingly for fear of their springing a leak and being washed out. Being of sand, a small steam would soon grow to a torrent unless promptly checked. In this ravine, which will soon form a part of the canal, are innumerable channels for the flow of water. The banks on all sides leak more or less and would supply a sufficient volume of water in twenty-four hours to inundate the place where men not constantly employed day and night in keeping these waters courses open for a free flow of the water, and in working the large steam pumps which draws the water up into an elevated trough, through which it passes over the embankment into the canal. One pier of the railway bridge is already built, the foundation for the second is ready and piles are being driven to support the foundation for the third. Five piers in all will be necessary for the bridge. This work will be finished this fall, will be let in. West of the railway track is a long channel which has been dug out by the dredges. Still there is much to be done before the work is completed.—*Belleville Intelligencer.*

## THE MACKENZIE COUNTRY.

The rebellion in the North West has been of some benefit to Canada in directing public attention to that great northern country, on the southern skirt of which military operations were carried on. It must not be supposed that the region of muskeg and scrub through which General Middleton chased Rig Bear is a fair specimen of the vast tract that lies beyond the North Saskatchewan. At Athabasca Landing, only ninety miles north of Edmonton, the navigable waters of the Mackenzie are reached, and from there to Fort Simpson, in North Latitude 62, the traveller passes through a rich timber district, while between Simpson and the Arctic circle, four degrees further north, lie enormous forests which will some day be turned to good account. At Simpson the spruce grows to a diameter af two feet. The Hudson's Bay officers raise potatoes, barley, and even a little wheat; but it is much too far north to admit of profitable farming, and the future of the region rests upon its timber and mineral resources, which are very great. Petroleum, gypsum, coal and salt are found in abundance. The Mackenzie with its tributaries, and the Slave and Great Bear lakes swarm with fish, and here and there alluvial gold occurs. As yet, however, little is known of this country. It is in the hands of the Slave, Lehaunie, Dog-Rib, Locieux, and Montagnais Indians, who trade with the Hudson's Bay people; but the company's officers, who are never over sanguine in such matters, say that the watershed of the Mackenzie covers by far the richest gold field in Canadian territory.—*Toronto Mail.*

## A GIANT OAK.

A very long peculiarly strange shaped boat lately passed through the River Maas, attracting the attention of everyone on the waterside. On the boat could be read the following inscription in large letters:—"This oak, which weighs 55,000 kilograms, was in existence before the Flood." The boat really contained this giant oak, of which so much has been talked, and which was found in the bed of the River Rhone, close to the pass which leads to the fortress, Pierre Chatel. This tree, which is in a remarkable state of preservation, it although springs from a prehistoric period, causes general surprise by its enormous dimensions, which are 31 metres in length, 6 metres in circumference at the root, and three metres round the middle; it contains 35 cubic metres of wood. Its weight reaches 55,000 kilograms.

Owing to loss of the bark and sapwood about a quarter of the sixe has been lost.

The wood of this giant oak resembles ebony, and people estimate its age at 500 years, not counting the hundreds of years it has lain in the bed of the Rhone. The tree during its period of growth has certainly been a contemporary of the world's first inhabitants, and must then have attained a height of 50 metres. The giant oak is conveyed in a model boat, quite a specimen in its way, and the intention is to let this wonder of nature from a time long gone by make a journey round the world.—*Svensk Travary Tidning.*

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### TRADE MEETING—PRICES FOR AUGUST.

There was so large an attendance at the regular monthly price list meeting on Monday, July 27th, at Chicago, that it reminded one of 1881-82, when the trade had some interest in business, and were always on the alert to catch a favorable breeze. The chairs were nearly all occupied, and an unwonted interest and harmony prevailed, with very little of the growling and complaining manifest that have been so characteristic of meetings within the past two years. Especially was the bear element as tame as if caged and full fed. Mr. M. T. Green led a forlorn hope against nearly the entire number present, who were actively in favor of making advances on common lumber, or acquiescent in such a move. Mr. Green was not voilent, however, and retired to his corner with his little coterie of bears, after each feeble effort to check the upward turn of prices.

Mr. S. K. Martin was called to the chair, G. W. Hotchkiss acting as secretary.

The committee appointed to devise a plan for a lumberman's insurance company, reported as follows:

"The committee on insurance, after several meetings held during the past month, would respectfully report as follows:

"That there was presented, or proposed, three different forms, by which the lumbermen of Chicago might be able to carry a proportion of their own insurance.

"The plan of a mutual company, either merely for local purposes or for general insurance, which did not meet the approbation of the committee, for the reasons that they looked with distrust upon any scheme by which there might be an undetermined liability, and also because under any assessment plan of insurance there is not the money in hand to pay a possible heavy loss, which, in our judgment, is essential to a feeling of security.

"The plan also of a company, whether mutual or joint stock, which is to comprise the insurance of all lumber, not only in Chicago, but in the retail yards of the country, the yards of other distributing centres, and the amount piled in the vicinity of mills through Wisconsin and Michigan, this committee deemed too large an undertaking to be entered upon at first; such a scheme we believe could be made both practical and profitable, but we believe the sense of the dealers of Chicago, as expressed to us, was in favor of not engaging in the insurance business to any larger extent than the present pressure seems to necessitate, and the detail and labor of organization for so extended a field seems to us beyond the province of us as lumber dealers, and an encroachment upon the domain of private enterprise.

"The last plan, and the one which seems to us best suited for the needs of the present condition of our affairs, is that of carrying one with another a certain proportion of our insurance.

"We believe that such a plan may be practically mutual so far as equality of interests and risks are concerned, without being a "mutual company" in the liability to assessment or possible future demands.

"We would present to the consideration of this meeting the formation of a corporation or stock company under the laws of Illinois, empowered to do a general insurance business, and with an authorized capital of $300,000, of which at least $150,000 is to be taken and fully paid up by the lumbermen of Chicago and South Chicago who desire to coinsure with their fellow lumbermen in as near as can be to the proportion which they would want to carry in such company; have a directory elected from among the stockholders, in whose hands the general management of the company would be placed, they could allow the company to carry from $750,000 to $1,000,000 of insurance upon our yards, distributing it, if possible, in proportion to the stock taken by the members, but using their judgment according to circumstances so as to avoid placing too large an amount in any one locality; one good insurance man could be placed in charge of the company at a moderate salary, as the duties of the position would take but a portion of his time.

"We would recommend the policies to be written at three-quarters the regular board rates as the expense of conducting such a company would be at least 25 per cent. less than the usual ratio of expenses to premium. We believe that this is far better than for each individual or firm to carry a proportion of their own insurance, and in any ordinary or even a sweeping fire this company would pay fully the losses sustained; and with every year which passed free from disaster we should see a large increase inits surplus fund, and proportionately in its power to sustain a heavy loss.

"GRANGER FARWELL, Chairman;
"J. P. KETCHAM,
"THOMAS WALKUP,
"THAD. DEAN,
"A. C. SOPER,
} Committee."

The report was accepted and the order placed on the file. Subsequently Messrs. Thad Dean, A. G. Van Schaick and W. O. Goodman were appointed a committee to solicit subscriptions for the proposed insurance company.

THE PRICE LIST.

The price list for August was then taken up, and revised, class by class. Thick uppers, selects, and inch finishing lumber were passed over unchanged. Twelve inch common boards, 16 feet long, were advanced in price 50 cents a thousand. It was developed that this item of stock is very scarce, and cannot be bought except in limited quantity. No. 1, 6 inch, dressed and matched fencing was advanced from $14 to $15 a thousand, and 10-foot fencing, same class, 50 cents. Ship lap was put up 50 cents. The four items of common and cull boards were advanced 50 cents a thousand.

In dimension, all 2x4 was advanced 50 cents; all 2x6 $1; 2x8, 22 and 24 foot, $1, and al lengths below that, 50 cents; 2x10, 20, 22 and 24-foot, $1; shorter lengths, 50 cents; 20 and 22-foot, 2x12, $1, and 24-foot, $1.50; 4x4 and 8x8, inclusive, 20, 22 and 24-foot, $1, and shorter lengths, 50 cents a thousand.

Standard A, extra cedar, and standard cedar shingles were each advanced 15 cents a thousand. Choice A (pine) was stricken from the list, because this grade does not cut sufficient figure in the trade to necessitate a quotation.

A letter from a Clinton, Iowa, firm was read, stating that it had refused estimates for $75,000 worth of lumber recently, because the house was confident there would soon be a material advance.

Mr. A. G. Van Schaick, for the committee appointed to ascertain the best means for additional protection from fire in the lumber yards of the city, reported the result of the committee's labor. Three methods of better protection were considered—the laying of mains in all the streets of the Twenty second street district, a fire patrol night and day to extinguish fires, and a fire tug or tugs. The committee decided in favor of fire tugs, which are endorsed by Fire Marshal Sweeny and the board of underwriters. The committee recommended the fire tug plan and the recommendation was adopted. The committee, consisting of A. G. Van Schaick, John H. Witbeck, Perley Lowe, A. F. Beidler, and E. G. Mason, were continued in office, with instructions to proceed in carrying out the fire tug scheme.

Mr. Perley Lowe presented an agreement, which was read, to which 49 signatures had been attached, pledging the signers to submit to an assessment of a certain percentage on their lumber stocks, as a means for providing funds with which to procure a tug and fire apparatus.

Resolutions of condolence with the family of General Grant were read and adopted.—*Northwestern Lumberman.*

### ADVANCE IN LUMBER.

That lumber is looking up is positively certain, and an advance in some grades is already reported in Chicago and at other points. Several Chicago dealers have recently been making purchases on the Saginaw river, over 3,000,000 feet being booked here for that city within the past week. Undoubtedly the past month's idleness of all the mills on the Saginaw river will have a strong tendency to still further enhance prices. An exchange says that the wholesale dealers in lumber are highly gratified at the advance which has taken place within the past month in cargo rates on lumber. The price of piece stuff has risen 50 cents or $1 per thousand on all grades in a month, and on shingles 10 or 15 cents a thousadd by cargo rates. The trade is a little better, as the advance has stirred up the country demand so that it is quite satisfactory. Country dealers think that since there has been an advance there will be a further advance, and so they buy largely. A wholesaler said yesterday: "The advance is partly due to a strong demand over the country, especially in large cities, towns and villages, where there is an immense amount of building going on. Chicago alone will use 500,000,000 feet in building and for manufacturing purposes this year. The advance in rates is partly due to the light cut of logs in the Northwest last winter. In Michigan Wisconsin and Minnesota, three large lumber states, the cut of logs in the winter of 1883-4 was 8,000,000000 feet; in the winter of 1884 5 6,000,000,000. That means a reduction this year of 2,000,000,000 feet, and there will be that amount less of lumber in the country, if all the logs are cut up." The gentleman went on to say that the lumber business which had been on a decline for two years, has evidently struck bed rock, and will now pick up. "The depression in the trade," he remarked "is due latterly to the financial depression, but primarily to the over production and the poor demand. On all grades of lumber the price fell off $3 a thousand in the two years. If the cut of logs is kept down next winter as much as it was last, the trade will be all right." A meeting has been held in Chicago to increase yard rates on lumber.—*Lumberman's Gazette.*

### Saw Mill on Fire.

MIDLAND, July 11.—A fire broke out this morning in the extensive mills of the Ontario Lumber Company, better known as Cook's mills, and property valued at from $22,000 to $25,000 was destroyed. The insurances are as follows:—Commercial Union, $5,000; British America, $5,000; Queen's, $3,000; Hartford, $3,000.

THE Parry Sound *Star* says:—Mr. Pratt, of the Conger Lumber Company, informs us that his company has sold nearly three quarters of this and also last season's cut of their mill, at very good prices, and that the lumber sold will be shipped as fast as possible.

**"Laugh and Grow Fat,"**

is a precept easily preached, but not so easy to practice. If a person has no appetite, but a distressing nausea, sick-headache, dyspepsia, bolis, or any other ill resulting from inaction of the bowels, it is impossible to get up such a laugh as will produce aldermanic corpulence. In order to laugh satisfactorily you must be well, and to be well you must have your bowels in good order. You can do this and laugh heartily with Dr. Pierce's "Pleasant Purgative Pellets," the little regulators of the liver and bowels and best promotors of jollity.

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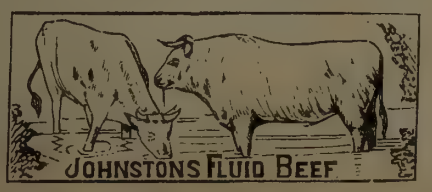


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., AUGUST 15, 1885.*


THE specimens of Michigan timbers that were exhibited at New Orleans, La., will be placed in the museum of the agricultural college of Michigan.

THE Campbell Barrell Hoop Machine Company, with headquarters at Montreal, and a capital stock of $30,000, has been formed and a charter applied for.

THE West Michigan Lumber Company has bought of T. Guilford Smith a section and a half of pine land, near Hungerford, Mich., at a reported price of $147,000.

THE steamer Algoma recently arrived at Rat Portage, Ont., with a tow of logs for the Minnesota & Ontario Lumber Company, containing 1,250,000 feet. The tow was finally taken to the mouth of Rainy river.

LOUIS WARD, secretary of the Pere Marquette Boom Company, at Ludington, Mich., states that the quantity of logs that will be brought down the Pere Marquette river this season will not exceed 80,000,000 feet, against 130,000,000 feet for last season.

L. E. KERR, of Eau Claire, Wis., recently returned from the Bow river country, Alberta, in the Canadian Northwest. He is a member of the Bow River Lumber Company, and went out to look over the situation in that far-off region. He reports the prospects good for the rapid development of the Bow river district in lumber production.

THE timber-carrying trade on the ocean, so long done exclusively by sailing vessels, finds steamers catering for it at different points. At St. John, steamers are "making" in this direction, and at Mobile, Alabama the steamer "Sculptor" has been chartered to take a load of timber to Liverpool. She is the first steam vessel to enter that port for timber, though Pensacola has shipped several cargoes to the other side by steam.

THE enterprise of Mr. Alex. Gibson, New Brunswick's lumber king, knows no rest. He is about to add to the industries of Maryzville by erecting a shingle and saw mill and an iron foundry in that place.

ALABAMA has a total of 324 saw and lumber mills, seventeen planing mills, fifteen sash, door, and blind factories, and six stave mills. Here immense lumber resources will soon demand a much larger number of mills and factories for their development.

THE Minnesota & Ontario Lumber Company have built a new mill at Rat Portage, Ont. It has a capacity of 130,000 feet of lumber, 50,000 lath, and 50,000 shingles a day. It was christened "The Norman," on July 20th. Denis Ryan, a reputed millonaire, of St. Paul, is president of the company, and W. J. Macaulay is managing director. A McLaughlin is the local manager.

A MONTREAL paper gives the following instance as showing how the authorities of Ontario are endeavoring to enforce the law for timber preservation: "At Pembroke recently the foreman of a timber drive on the Petawawa river was convicted under the Ontario Act for the preservation of the forests from fire, with having neglected to provide himself with a copy of the law, and regularly read and explain it to his men. The provision is to regulate the necessary habit of starting fires for cooking and warming purposes along the river and in forests. His neglect cost him $20 and costs. The cook on the same drive was fined $16 and costs for having failed to properly extinguish the cooking fire when leaving. The heaviest penalty for violation of this act is $50; lumbermen will, therefore, see the importance of properly posting themselves and their men as to its requirements."

IN the Imperial House of Commons Mr. A. Arnold asked the Chancellor of the Exchequer whether he could now state the terms of the Royal Commission on Trade Depression and the names of the Commissioners. —Sir M. H. Beach.—The terms of the Commission will be as follows:—To inquire into the extent, nature, and probable causes of the depression now or recently existing in various branches of trade and industry. My noble friend, Lord Iddesleigh, who will be Chairman of the Commission, proposes to lay a memorandum before the Commission at its first meeting, which will indicate the scope and manner of the inquiry at greater length than the terms I have quoted, and the memorandum will be laid before parliament. As to the composition of the Commission, I am afraid I cannot give a final answer today. I do not think it would be advisable to communicate to the House some of the names until the whole of the Commission has been appointed. Difficulties have arisen in the matter, delays which are not due to us, and I will communicate the names as soon as I can.

## RAFTS ARRIVED.

The Quebec *Chronicle* gives the following list of rafts arrived:

July 24.—Stokes and Kelly, staves, Bowen's (Sillery).

W. R, Thistle, deals, etc., Cap Rouge.

July 28.—Flatt & Bradley, staves, Point-au Pizeau.

D. D. Calvin & Co., oak and pine, sundry coves.

July 29.—Collin's Bay Co.———, Indian Cove West.

Flatt & Bradley, staves, Sillery cove.

Thos. Buck, elm, oak, ash, etc., Ottawa cove.

Fraser, Sereny & A. Fraser, white and red pine, St. Lawrence docks.

Aug. 3.—Barnet & Mackay, white pine, etc., Cap Rouge.

R. & G. Strickland, oak, &c., Dobell's (Sillery).

Aug. 5.—J. M. Irwin's, white pine, ash, &c., St. Lawrence dock.

James Gibson, birch and ash, Hadlow cove.

Dominion of Canada Company, deals, Commissioners' Wharf.

## REPLY TO "N."

*To the Editor of the Canada Lumberman.*

DEAR SIR,—In your issue of the 1st inst. I notice a letter on the Toronto trade, the author being evidently the same who criticised my correspondence some few weeks since, and his success was so small on that particular occasion, that, but for personal animosity to your correspondent, I am satisfied that he would not have returned to the attack. First then he seems greatly exercised for fear the quotations of prices are stereotyped. I would ask him how much variation has there been during the last six months in the mill men's prices. I have just referred to invoices from the mills in May last, giving mill culls at $5.50 per M f. o. b. cars, and joisting cut to order, 16 feet and under, $9 per M, and on invoices dated the first inst. I find the same prices. How then could there be any material change in the retailers figures? I have also turned up invoices of purchases of small lots from the yards in different months during this year, and I find the prices charged tally with my quotations the LUMBERMAN. But then perhaps the retailers may have imposed on that ignorance which "N" gives me credit for. I may, however, be permitted to say that it is "N" who displays the most of that commodity in not being aware that the quotations given in the LUMBERMAN apply solely to stuff delivered from the yard—otherwise he is guilty of misrepresentation.

Pitiful as I may have represented the wholesale trade to be, I have never made it appear half so bad as "N" does. It is well known by all dealers that $7.50 to $8.00 per M by car load is the price being paid by retailers for culls on the track here, and yet he states that every builder knows that he can purchase all he wants of that class of lumber at $8.00 to $8.50. So then the retailer teams into his yard and delivers out again for a profit of 50 cents a thousand. If "N" means that the retailer purchases from the manufacturer and turns it over again on car the builder at a profit of 50 cents per M why under the sun does he not say so and not seek to mislead.

Again, why does he make a comparison between the pork and flour trade and that of lumber; "N" knows right well that we have no such grading of qualities in lumber in this market as is done on grain, flour and pork. One man will place a quantity of lumber on the market as being mill culls, and only dead culls, another calls good mill culls coarse common and journal shipping culls as dressing.

*Scabby*—that it has to be treated so—the word used in this connection savours so strongly of the gutter that there is no necessity for me to comment thereon.

He then goes on to say that the youngest man in the wholesale trade was to the manner born, and is now of age, etc.—The latter part of his assertion I do not wish to dispute. Age, pure and simple, never yet made a lumberman, but, in regard to the former portion of his claim, until "N" gives us his definition as to what to the manner born means, as applied to a lumberman, I can scarcely answer him. If he means born in the woods and brought up in a saw mill, we have not many such here. But if he means that a year or two spent in a lumberman's office, or nearly fresh from the plough handle, there are some that can claim that title. I would have it understood, however, that I wish success to all such men in the new calling, but "N" should not dispute facts nevertheless. "N" also displays great sympathy for the retail dealer by reason of the so called scab trade, that is being done here from the railroad yards. How far retailers will appreciate the concern displayed by "N" for their welfare, I can easly determine when I beg to inform that this same "N," crying out in the anguish of his soul for their weal, is acting as agent for a firm who through his agency is selling direct to consumers, so that he is either insincere in those professions, or unfaithful, in the full sense of the word, to his employer's interests, or in other words quarreling with his own bread and butter,—"N" can take either horn of the dilemma as suits him best. I have no desire to uphold the practice of wholesale men selling direct to consumers, but as intimated in some of my correspondence, there are two sides to this question. When the retail men become a unit on this matter, let them call on the middlemen and say frankly, we agree to purchase all the lumber we require from you, and you only, on condition that you leave us to do all the trade with the consumers. I have no hesitation in saying that under those circumstances the wholesale men will meet them half way, and, until the retail men do this, they have no real grievance. With regard to the number of firms engaged in business here now, as compared with last year, I did not state, as "N" would imply, that there were more retail dealers, but more engaged in selling, and this is correct, and if "N" wishes it understood that the retail dealers are all healthy, as meaning in a solvent condition, I do not dispute him. If, on the other hand, he wishes it understood that all of them have been making money during the last two months, all I can say is, I doubt it.

Now the only advice I would offer to "N" is this, if, in the future, he desires to criticise any of my correspondence to the LUMBERMAN let him do it is a fair manly way, make sure of having facts to write about and then go ahead, and I shall be most happy to meet in the same manner.

Truly yours,
CORRESPONDENT.

Toronto, Aug. 4th, 1885.

## WOOD WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the United States patent office, July 28th, 1885, is specially reported by Franklin H. Hough, Solicitor of American and Foreign Patents, 925 Fifth street, N. W., Washington, D. C.

323,279.—Chuck jaw, lathe—T. H. Costello, Chicago, Ill.

322,966.—Hoop shaving machines, knife for—J. Prince, West Randolph, Vt.

322,904.—Lathe tool feeding mechanism—E. S. Cobb, Terre Haute, Ind.

322,935.— Planing machine —H. A. Holt, Wilton, N. H.

323,107.— Saw Buck—W. E. Brock, New York, N. Y.

323,318.—Saw guard—J. C. Croff, Connersville, Ind.

323,114.— Saw gummer —J. B. Clopton, Bastrop, Tex.

323,055.—Saw set—W. W. Wheeler, Westport, Conn.

323,229.—Sawing spouts, machine for—C. M. Strobridge & W. Houghton, Merrill, Wis.

PATENTS ISSUED AUG. 4.

323,454.—Auger bit—F. Shailer, Chester Conn.

323,804.—Plane, bench—J. P. Gage, Vineland, N. J.

323,395.— Plane guide— W. W. Preston, Coldwater, Mich.

323,517.— Plane holder— F. F. Mattoon, Boston, Mass.

323,445.—Log binder—H. Pangborn, Lees Corner, Mich.

323,602—Saw, chain—W. S. Shipe, Minerva, Ohio.

323,508.—Saw handle—W. R. Towse, Columbus, Ohio.

323,628.—Saw tooth swage—C. S. Black, Indianapolis, Ind.

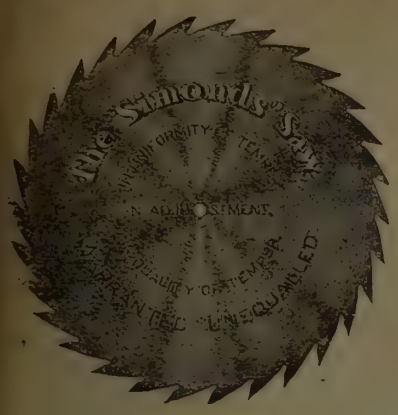
## WINNIPEG.

The *Commercial* says:—In this business the past week's sales have been quite fair and there would appear to be a pretty good demand in vogue, but there are no signs of any great activity during the present time, while we cannot hear of any prospects being held out of a good trading for the balance of the season. Mills generally are working at their full capacitw. Prices are reported to be anything but firm, although no actual cutting is being done.


**$500 Not Called For.**

It seems strange that it is necessary to persuade men that you can cure their diseases by offering a premium to the man who fails to receive benefit. And yet Dr. Sage undoubtedly cured thousands of cases of obstinate catarrh with his "Catarrh Remedy," who would never have applied to him, if it had not been for his offer of the above sum for an incurable case! Who is the next bidder for cure or cash?

# ST. CATHARINES SAW WORKS!



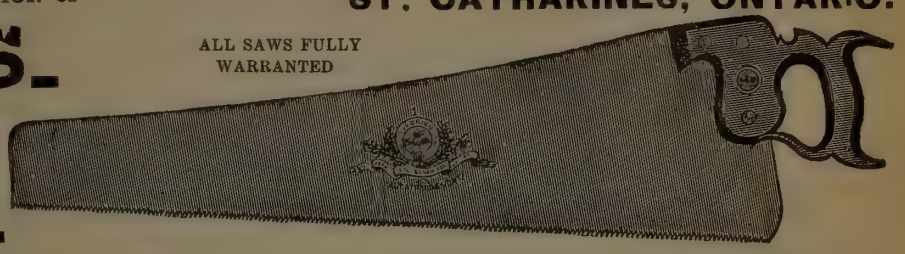

## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

## SAWS.

ST. CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

## "SIMONDS" SAWS.

☞*All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*


### Accosting the Wrong Passenger.

The commercial traveller of a Philadelphia house while in Tennessee approached a stranger as the train was about to start, and said: "Are you going on this train?"

"I am."

"Have you any baggage?"

"No."

"Well, my friend, you can do me a favour and it won't cost you anything. You see, I've two big trunks, and they always make me pay extra for one of them. You can get one checked on your ticket, and we'll euchre them. See?"

"Yes, I see; but I haven't any ticket."

"But I thought you said you were going on this train?"

"So I am; I'm the conductor."

"Oh."

He paid extra, as usual.—*Independent.*

### A Lady's Strange Sickness.

LONDON, Ont., Aug. 8.—Miss Alda Lyle of North Dorchester, has been stricken down with a disease that the doctors do not understand. She has lain two weeks entirely helpless and without power to speak or open her eyes, yet she seems to be conscious. She lays as though she were dead, but when a stranger bends over her to see if she is alive the slightest whisper excites her terribly, but as soon as her mother puts her hand on her and speaks to her, she becomes passive at once. The doctor thinks she may come out of this strange deathlike sickness, but her friends are without hope.

### The Rescue of Riel.

ST. PAUL, Aug. 12.—A despatch from Fort Benton says: "There have been many queries regarding the continuous stay in this neighborhood of Dumont and Dumais, lately of Riel's force. It is understood they are trying to make arrangements with the authorities at Washington for a tract of land for their halfbreed brethren. Yesterday, however, it was rumoured Dumont's real mission here was to organize a force of dare devils to make a dash on Regina and release Riel."

### A Clergyman's Claim.

PITTSBURG, Aug. 11.—On Thursday the Rev. W. R. Coovert will leave for New York to endeavor to establish a claim to Harlem Commons including that part of Riverside park in which Gen. Grant's tomb is located. Of the Coovert family there are about a hundred, and if the claim is proved $660,000,000 will be divided among them.

### On the War Path.

BATTLEFORD, N.W.T., August 12.—S. Ballandyne reports that there are two hundred Indians on the warpath between this place and Swift Current. Matters are on the move. H. Reed and Agent Roe are off to Poundmaker's reserve with a Mounted Police force to take notes of the actual state of affairs.—*Mail.*

"Her face so fair, as flesh it seemed not,
But heavenly portrait of bright angel's hue,
Clear as the sky, without a blame or blot,
Through goodly mixture of complexions due,
And in her cheeks the vermilion red did show
This the poet's description of a woman whose physicial system was in a perfectly sound and healthy state, with every function acting properly, and is the enviable condition of its fair matrons produced by Dr. Pierce's "Favorite Prescription." Any druggist.

### A New York Mystery.

NEW YORK, Aug, 12.—No murder which has been committed in Brooklyn for years has caused so much excitement and comment as that of the shooting of Albert R. Herrick in his residence 339 Pearl street yesterday afternoon. Many theories are advanced as to who did the killing, some holding it was his stepson, while others claim that it was a burglar who was caught by Mr. Herrick, and who shot him down to effect his escape. Herrick's stepson Armstrong is in custody. The police are hard at work on the case, but so far nothing new has been developed Armstrong says he was not at his stepfather's house during the afternoon, and accounts for his movements. Autopsy showed that the ball had entered Herrick's heart.

### Natural Gas Discovered.

PORT COLBORNE, August 12.—Natural gas has been struck here at a depth of 420 feet, of sufficient force to light up the town. It is estimated there is gas enough under Port Colborne to a depth of 500 feet to supply fuel for a dozen large manufactories. The well is now forcing gas through a pipe to the principal street and illuminates the square when lighted.

### A Good Reason Why.

Little Johnny Fizzletop has the habit of walking up every night in the middle of the night and demanding something to eat. At last his mother said to him:

"Look here, Johnny, I never want to eat anything in the night."

"Well, I don't think I'd care much to eat anything in the night if I kept all my teeth in a mug of water."


### Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.


### "Shoot Polly as she Flies,"

—*Pop.*

was the way it appeared in the proof-sil. The Argus-eyed proof-reader, however, knew thep quotation intended, and changed it to read; "Shoot Folly as she flies."—*Pope.* Of course it was an error, yet how many are daily committing much graver errors by allowing the first symptoms of consumption to go unheeded, If afflicted with loss of appetite, chilly sensations, or hacking cough, it is suicidal to delay a single moment the use of Dr. Pierce's "Golden Medical Discovery,"—the great and only reliable remedy yet known for this terribly fatal malady Send two letter stamps for Dr. Pierce's complete treatise for this disease. Address World's Dispensary Medical Association, Buffalo, N. Y.


## FOR SALE,

## TIMBER LIMITS & SAW MILL

THE MASKINONGE LUMBER COMPANY offer for sale their property consisting of Saw Mill at Maskinonge Bridge, P. Q., within quarter mile of N. S. Ry. Station, also good facilities for shipping by water. Capacity of Mill 50,000 feet per day, water and steam power; saws and belting all complete. Two hundred and forty square miles of limits situated about thirty miles from Mill, which are interseeted by a number of good driving streams, and are rich in Pine, Spruce, Cedar, etc. Satisfactory reasons for selling out.

For further particulars appiy to

MASKINONGE LUMBER CO.

6t15 Maskinonge Bridge, P. Q

A FULL LINE of all Size Single and Double Belting constantly in stock.

☞All ORDERS Filled same days as received.

## TORONTO

WAREROOMS

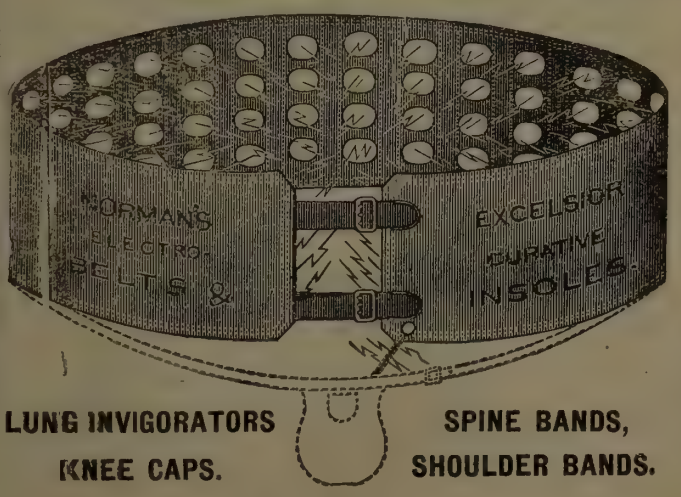
## 86 King Street East

*Factory and Warerooms:—2518, 2520 and 2522, Notre Dame Street.*

## MONTREAL, QUE.

# Norman's Electro-Curative Belt!

***4 QUEEN ST., EAST, TORONTO.***




This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

LUNG INVIGORATORS
KNEE CAPS.

SPINE BANDS,
SHOULDER BANDS.

## *A. NORMAN, Medical Electrician*

4 QUEN STREET EAST, TORONTO.

***N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination***

## LUMBER MANUFACTURE IN THE NORTHWEST.

One of the most important mechanical industries of the Northwest is the manufacture of lumber. The extensive lumber regions of Michigan, Wisconsin and Minnesota, have been mainly relied upon to meet the immense demand for soft wood lumber, created by the wonderful growth and development of the country, from the great lakes, west to the foot of the Rocky Mountains. To keep up with this constantly growing demand, yearly additions to the capacity of our lumber cutting mills have been required, and new mills in various sections, and the enlargement of those already at work, have been the order of the day, until the industry now comprises the investment of many millions of dollars of capital, and the constant labor of hundreds of thousands of workmen. The array of figures presented as showing the white pine lumber production for the year 1884 is almost bewildering, but with the employment of so much capital, and the interest of so many enterprising men enlisted, it is not strange that so many wonderful improvements have been made in the cutting of lumber. Many men who have received their only impressions of a saw mill from the primitive establishment that were in vogue when they were boys, would hardly be less surprised to step into one of the great lumber mills of the present day, than the man who saw, for the first time, the long train of railway cars that have taken the place of the lumbering coach, or the heavy freight wagon slowly drawn by the traditional four horse team. A glance at the figures of production of white pine lumber, however, and a comparison with the amount produced in three or four years previous, may prove instructive, and as showing at what a fearful rate the forests in the Northwest are disappearing. The production has steadily increased from year to year. In the west of the Chicago district, the railroad and interior mills, the Saginaw district and Lake Erie ports, the production has been as follows :—

| | |
|---|---|
| 1884 | 8,070,533,054 |
| 1883 | 7,624,789,786 |
| 1882 | 7,552,150,744 |
| 1881 | 6,768,846,794 |
| 1880 | 5,651,295,006 |

The total production in the year 1873, in the districts named, was 3,993,780,000, and the production up to the year 1879 had increased to 4,048,960,000. The table above shows the enormous increase in the production since 1879, which has just about doubled. In the manufacture of lumber, as in almost every other branch of production, the great desideratum has been, while increasing the quantity, to diminish the cost of production, and to that end, labor-saving machinery has been introduced to a wonderful extent. While the demand for lumber has grown to enormous proportions, the price, like that of nearly every other product of factory and mill, has declined, and the only alternative of the manufacturer has been to proportionately reduce the cost of production, by the use of labor saving machinery. How this has been done by some of the largest, most intelligent and enterprising manufacturers, wil no doubt be interesting to our large class of readers and patrons engaged either directly or indirectly in the consumption of lumber. This, however, must form the subject of a future article.

During the latter part of last summer the lumber manufacturers of the Northwest determined to do what they could to reduce the cut of logs, as there had been for a number of years previous an excessive production of lumber. Their efforts in this direction were partly successful, and Mr. A. J. Van Schaik, president of the Lumber Manufacturer' Association, estimates that the log supply of the Northwest for the present year, will fall short some 2,000,000,000 feet of the supply of 1884. A good many manufacturers think that even this decrease is not large enough, and that a still larger reduction is warranted. The low prices at which lumber is selling, has induced parties who have invested large capital in pine lands, that is best to cut fewer acres until things brighten up, and we learn that it is the intention of a number of the largest lumber manufacturers to pile up a goodly proportion of the product of their mills this summer and next autumn, rather than crowd it on a phenominally low market.—*Lumber Trade Journal.*

## MORE LIGHT ON THE RELATIVE VALUE OF WOOD.

The time has already arrived when a more thorough and intelligent investigation into the nature of the various woods of our native forests and their adaptability to the different uses wherein timber is advantageous would prove extremely valuable. It is indeed strange that the research in this direction is so meager, so narrow and disconnected. There has never been any wide and systematic investigation of the relative qualities of the different species of timber and a comparative summing up of the same. The metals and stones have been exhaustively studied, but we are without any comprehensive or authoritative information concerning our timbers. Private investigations have been made in a small way and under differing circumstances, which leave the results obtaided at variance. It is astonishing how few, even among those who should know every phase of the subject, really possess any positive knowledge on the subject beyond the mere fact that for certain purposes certain woods are used with good results. The information of commerce, and, indeed, of manufacture also, on such subjects, is altogether traditional. Certain growths are used because they were found to suit the purpose long ago, and there has been and is, a remarkable antipathy to trying experiments to see if something else which might be had for less money would not serve as well.

Blessed with magnificent forests, the people of this country have never been obliged to economize in this direction. That which was known to be good was so cheap that there was little present incentive to seek anything else, and it has not occurred that provision should be made for the future. The " good timber," so considered, was used lavishly, and that which was tried by some antiquated farmer of a remote generation in the worm fence or some other equally decisive test, and found wanting, was destroyed wholesale. A timber thus found wanting in one thing was condemned for all, and a prejudice difficult to combat grew up on the subject. From time to time it has occurred to men that as certain characteristics unfitted a given timber for one set of uses they might unfit it for, or might even make it especially suited to, other purposes. Such things are known to be true of the metals—of almost every material, in fact, known to the world. The results of personal investigation have been uniformly convincing that the so called inferior woods were only inferior for certain purposes, and that every species was capable of profitable use in some one or more of the fields of manufacture. The rotting qualities of certain woods for which they had been condemned were found to exist only under certain conditions which could be guarded against by removal from damp, by immersion in water, by sawing thin, and a variety of other means. Certain woods, as the hard maple, which possess little market value, have been found to resist wear much much better than the woods hitherto most favored for that purpose. Tendencies of other trees to twist and warp has been found easy of remedy ; in woods supposed to posses none, great beauty of grain. Condemned trees, as the sweet gum, have proven themselves susceptible of a high polish, and as weather boarding and fencing (off the ground), once securely on, have worn with pine or poplar. The country is scoured over for stave timber, and yet red oak has never been tried for the purpose, simply because it was not the habit to make staves out of red oak. No other reason why it should not be so used has thus far been adduced. Millions of feet of swamp oak are yearly destroyed. Straight grained, clear of knots, dense and tough, it splits easily, makes superior clap boards, and in a floor gives up grease and stains like marble, yet it is unknown to commerce.

Thus the catalogue of native trees might be run through, and the reader would wonder how few of them have been decreed valuable. But we are nearing a time when this must change, when timber will be scarce and the people will awaken to the enormity of the sin of destroying the woods now considered useless. There is in accurate and scientific investigation of this subject a rich field for some man's ambition. —*Industrial World.*

## SECOND-HAND SHAFTING.

The man who buys second hand shafting to run in his mill, is a fool. The man who sells it to him and tells him that it is " just as good as new" is a knave. If the man also buys a second-hand boiler, he is both a knave and a fool, and will buy second-hand machinery as well. When a saw mill or factory gets cleaned out by a fire, the owner will generally build again if he can get as soft a thing with the insurance folks as he had with the old mill. He will look longingly at the old, twisted shafting, and ask the machine shop man if it can be "straightened." The machine man lies unbusingly, and says "he can fix it as good as new." It is sent to his shops, and comes back with a bill big enough to buy half enough of new shafting. When started that shafting runs just as it has a mind to. It is shaky, and will always be so. Every time the owner thinks of his " good as new" shafting he groans inwardly, curses the machine man, and wishes he had bought new shafting, but he will do the same thing right over the next time his mill gets burned by fricton between a fat insurance policy and lean stock.—*Wood Worker.*

## KEEP THE MACHINE CLEAN.

Keep the machinery clean—free from all dirt, oil, sawdust, shavings, etc. It will be money in your pockets to see that it is done. Of course we understand that a machine hand cannot keep his machine perfectly clean and run it at the same time. What we refer to is the accumulated dirt, oil and dust which are to be seen in so many mills. One cannot help thinking, sometimes, but that the man who has not ambition enough to keep his maching looking neat an nice, hasn't ambition enough to be a good workman. That is just the way it sticks us, and we don't believe we are far out of the way. If you have your machinery kept clean you can always tell what shape it is in ; if it is covered with dust and dirt you can only guess what shapd it is in. We will not ask you to wade through a long, heavy article on this subject this hot weather. Only just think the matter over, and see if you won't be better satisfied with yourself if your machines and mill were always kept in applepie order. We believe you would.—*Ex.*

## FIRE AT TORONTO.

At 12.30 a.m. on Aug. 3rd, says the *World*, the worst fire that has ever visited the city of Toronto broke out in the mammoth eight story brick building on the south ssde of the Esplanade at the foot of Princess street, known as the glucose factory. Policeman Trotter sounded an alarm, and the whole fire brigade was called out. For destructiveness and loss of property the fire has probably never had an equal in the city. Scores of valuable crafts of all grades which were moored along the docks suffered alike with the factory, the foundry, the elevator, the boat houses, etc.

One of the watchmen in the glucose factory is missing. His name is Henry Wort, an old pensioner. The most diligent search failed to obtain a clue to his whereabouts and he must have perished. The sailors on the fine schooner Annie Mulvey, loaded 490 tons of coal, which was unloading at Elias Rogers' docks adjoining the factory, had a terrible experience in attempting to escape. William McCallum, a Port Hope sailor, was burned so badly he may die. The Captain of the Mulvey, Thos. Uglow of Port Hope, and James McCallum, a brother of William, were also pretty badly scorched.

The rapidity with which the flames spread was nothing short of a marvel. A strong dead east wind, amounting at times to almost a huricane, was blowing when the fire broke out. Great sparks and burning cinders were blown westward with rapidity, and by 2 o'clock the flames had reached the foot of Scott street. Almost everything in its wake, stationary and afloat, from Princess to Yonge streets, was burned to the ground.

It was nearly 3 o'clock before the flames was got under control. At this hour the wind began to shift to the northwest and rain began to fall slightly. The flames very luckily were confined to the south side of the Esplanade, and the valuable buildings on the north side of the nine blocks over which the flames traversed escaped with a scorching.

Nothing was burned east of the syrup works or north of Esplanade street. The fire was stopped at last at the foot of Scott street, and west of that the damage is but trifling.

Starting at the the glucose factory and proceeding eastward, the following are among the properties consumed or damaged :—

The glucose factory, owned by a syndicate composed of A. T Fulton, John Heys, Geo. Gooderham. W. H. Beaty, the estate of James Michie & Co., and others. The building, which was eight stories high and of brick, cost six years ago over $200,000. The syndicate, it is said, purchased it for a mere song, and were making preparations to manufacture glucose, spices, etc., on a large scale, the schooner Annie Mulvey, Rogers' coal docks, with several hundred tons of coal, Thos. Saulters' boathouse, A. Evans' boat house, S. R. Heykes' boat house, J. Gunsell's boat house, J. Ibbotson's boat house, Ried & Co.'s lumber yard, Walsh, James & Co.'s lumber yards, Currie, Martin & Co.'s boiler works, the corporation wharf, the Wiman swimming baths, Mrs. M. Rennardson's boat house, Hamilton & Sons' elevator, G. & J. Warin's boat house, Joseph Adamson's ice house, J. C. Graham's ice house, H. Williams' roofing works, Wm. Polson & Co.'s engine works, J. G. Beard's wharf and elevator, J Oag's blacksmith show, the buildings in Lionel Yorke's stone yard, Vale & Vet's flour barrel factory, the Ontario Panner's Supply company's factory, C. Wilson & Son's scale factory, J. Adamson's wharf, St. Lawrence wharf, J. Simmington's cigar box manufactory, Wm. Adamson's wharf, S. Crane & Co.'s coal docks, Sylvester Bros. & Hickman's wharf, Donogh & Oliver's lumber yard, J. R. Bailey & Co.'s coal docks. The fleet of ferry steamers at the foot of Church street were nearly all destroyed, also the stone hookers Madeline and Mary Ann.

The buildings between Church and Yonge streets—the Bayside Rowing Club house, Cook, Jones and Inglis' works, Geo. Lumber's fruit market, Hamilton's wharf, Mrs. Grieves' boat house, D. G. Lorsch's boat house, P. Burn's coal docks and Milloy's wharf—were not so much damaged as those to the east of them.

This list of properties are all more or less damaged, many of them completely.

Several schooners along the docks were either burnt completely or so badly as to be almost useless. Several on the other hand managed to get clear. A large three master, the Jessie Drummond, was after a hard pull towed from the slip to the east of Milloy's wharf out into the bay by the tug A. B. Cook.

A prominent insurance man was viewing the ruins about 3.30 o'clock. In answer to a question by a *World* reporter he said he estimated the total loss at $300,000. On this, he said, there would be an insurance of about $175,000. The origin of the fire is said to have been spontaneous combustion.

## M'LAREN vs. CALDWELL.

The public have not yet heard the last of the celebrated case of McLaren v. Caldwell, out of which rose the foundation for the equally celeprated rivers and streams bill, and indirectly the provincial rights agitation. This second action commences with a writ issued and an interim injunction granted on Saturday by Mr. Justice Osler restraining Mr. Caldwell from floating timber over Mr. McLaren's improvements on the Mississippi and its tributaries at the present time upon the river at low water, or at any time other than the spring and fall freshets, the previous suit having determined the right to use the improvements at high water. The injunction will continue in force till Tuesday week, the 11th of August, when an argument will take place upon the motion to continue. Mr. McLaren claims to have stored up a lot of water to use during the season of low water, and he objects to this being used by the defendant.

Subscribe for the CANADA LUMBERMAN.

# Chips.

LUMBER merchants in Ottawa report the demand for square timber unusually good at present, some large sales have been made and high prsces obtained.

THE Muskegon *News* says: "Lumber is advancing steadily. The price of piece stuff has gone up $9 in the last few days."

J. H. MOORES, of Lansing, purchased last week, of Manistee parties, 320 acres of pine land in town 24 north, of range 6 west, in Missaukee county, Michigan, paying $33,000. It is estimated that it will cut eight million feet and will be lumbered by Mr. Moore this fall and winter.

THE Dominion Government have decided to send a collection of lumber and minerals to the Colonial Exhibition in London, in addition to the collection exhibited at Antwerp. Prof. Selwyn has been entrusted with the task of selecting the mineral exhibit, and a practical man will be chosen to supervise the lumber collection.

THE Truckee Lumber Company, of California, claims to have the loftiest logging camp in the world. It is 7,500 feet above the sea level. But now comes the great Sierra Mining Company, with a logging camp and mill on Lee Vining creek, Mono county, at an altitude of 10,500 ft.

THE Cedar Mill easily carries off the palm for fish stories. On Monday morning Mr. Richard Lindsay discovered a monster eel in a hollow log which had been hauled up into the mill. It managed to wriggle itself out of its quarters and got down among the rollers, where it was captured by Mr. B. Brewer, by whom we presume it was transformed into eel cutlets, a dish highly prized by epicures.—*Deseronto Tribune.*

OPERATIONS are pretty brisk still in the shipyard. The schooner Pilot has been up on the marine railway undergoing repairs. Capt. Munsen's tug, the "D. Bowen" is being almost completely rebuilt and will in a short time be ready for launching. The boiler and engine are being put in Mr. E. Welsh's new ferry boat, which, painted red, white and blue, looks quite trim and saucy. Rathbun Brothers' new boat is about ready and will soon proceed to run on the route. The Industry waits for orders to proceed to Trenton at any moment.—*Deseronto Tribune.*

PROFESSOR MUTTRICH, of Berlin, has reached the following conclusion from his forest meteorological reasearches: (1) That the forest exercises a positive influence on the temperature of the air: (2) that the daily variations of temperature are lessened by the forest, and in summer more than winter; (3) that the influence of the leafy forest is in summer greater than that of the pine forest, while in winter the tempering influence of the pine forest preponderates over that of the defoliated forest. An attempt to determine the influence of the forest on the mean annual temperature led to no sure results.

THE jarrah wood of western Australia is said to defy all forms of decay. White ants will not touch it, and ships built of it do not need to be coppered. A perfectly sound piece, exhibited by P. L. Simmons before the London Society of Arts, was from a tree cut 32 years previous, that had remained on the ground since. Every two or three years brush fires had run over it and it has been exposed to the extremes of climate in that region. There are 15 different species of jarrah, and the growth is straight and without limbs 50 or 60 feet from the roots.

## THE MARKET FOR CHERRY.

The time is not far distant when good cherry timber will be as difficult to obtain as good walnut is at the present time. The cherry forests of Pennsylvania, undoubtedly the finest in the country, are nearly exhausted, and about all that is left in that state is held by a few large operators who have advanced the price of the manufactured lumber to such a figure that in certain sections it has become a difficult matter to secure trade. In 1878 the demand for cherry lumber in the East began to increase, and it was the means of increasing the number of mills in the state mentioned. At that time stumpage cost nearly, if not quite, as much as present, and the lumber sold at an average of $37 per thousand feet at the mills for good, and the culls were considered worthless. As the demand increased the manufacturers gradually increased prices, and at the present time good first and second cherry is held at the Pennsylvania mills at $60 a thousand, while the general grade of the lumber is inferior to that sold seven years ago at $87. Cherry culls are sold to-day, at from $10 to $15 a thousand, and the demand is increasing from the fact that numerous manufacturers of small wares are using cull cherry in preference to other woods. Within the past two years operators in certain parts of North Carolina, having put up portable mills, and at great expense, built roads up rugged mountain sides. As yet the venture has proved but fairly profitable, and it has not been possible to demonstrate the true worth of North Carolina cherry, from the fact that most of the timber so far obtained has been the smaller logs cut from the various tracts.

A curious feature of the cherry trade is the decrease in the demand east, and increases in the west. Up to the present year the sale of cherry west of Ohio has been limited, as compared with the east, but present indications point to a radical change in this feature. One Chicago hardwood dealer has lately contracted for 1,000,000 feet of Pennsylvania cherry, and still another has bought 500,000 feet from parties in North Carolina, in each instance paying not less than the price before named. It is claimed by yard men in the East with present trade there is no profit to be secured at such figures, and the result is that the architects and builders have adopted other woods, which, in turn, has caused cherry manufacturers to solicit trade in other sections.—*Northwestern Lumberman.*


**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

TRY

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LY

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

AUG. 8.—The volume of trade has visibly increased from the yards during the past week. All the yards are not equally busy, however, much depends on the location and the proximity of the dealer to the scene of building operations.

The quantity of lumber arriving by rail is considerably in excess of the demand so far, and the railroad yards are full to repletion. This state of things will not, however, I think, continue, as a large quantity of logs dependent on the June freshets, have not got down the streams, and will have to await another season's chances. Several mills are now short of logs, and the longer lengths of bill stuff is quite limited.

The quantity of lumber moving over our docks is small. The principal shippers at the present time are Messrs. Christie, Kerr & Co., S. C. Kanady & Co., Donogh & Oliver, and Wm. Latch. The first named being the heaviest in amount. The principal part now is shipping is from this season's cut, and a considerable portion of that now moving is not yet in a fit condition for shipment.

Mill men and lumber dealers alike are considerably exercised just now over the coming enforcement of the agreement entered into by the freight agents of the various railroads, as to weighing all loads of lumber. It is now stated that the manager of N. & N. W. R. R., intends to inforce the charge for double freight on all excess weight over 25,000 pounds,— rather a cheerful outlook for the lumbermen in the near future. I cannot say how far law may uphold that decision, but certain it is, common sense would dictate, that if any portion of the load is carried by weight, the whole load must be subject to the same rule. If this is carried out to the extent indicated it is not hard to decide on the future prosperity of the above road. At many points on that line the pine is all cut off still leaving large quantities of hemlock, and some mill men are now considering the question as to pulling down their mills and moving off to pastures new, or cutting up their hemlock before doing so. But does any sane man imagine for a moment that hemlock will be manufactured and freighted here at nine-tenths of a mill per pound. Better by far strip off the bark and then burn the trees, or let it stand as it now is. Just so soon as railroad managers come to understand that the interests of their lines, and that of their patrons, are identical, just so soon will their roads prosper and not before.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅞ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₱ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No, 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of August 8th says:—The result of heavy receipts during the past week is that the yard docks are all loaded up with unpiled lumber. If there should be less readiness to buy for a few days it may be attribnted to lack of dock room at the yards

But of one thing everybody can be assured, and that is that good cargoes of dimension will not have to lie at the market long without buyers. This class of lumber is still wanted in quantity fully equal to the supply, and at prices as high as those hitherto reported. Fair cargoes of short green stuff are worth $9 a thousand, and if dry, $9.50. Where cargoes run a large percentage to long lengths—that is, more than 20 feet—it is common to sell the long schedule at a separate price. We hear of a lot of 22-foot 2x12 that sold at $11, and another lot of 22-foot and upwards at $12. Long lengths, of both timbers and "slim jims" are still in great demand, at special prices.

There has lately been considerable of No. 1 boards and strips offered on the market, a striking change from the character of the offerings in the early part of the season. This class of lumber ranges in prices from $16 to $18.

There is no visible evidence of weakness in the shingle market. The supply this week has probably been larger than for a time previous, but there has been no clog in the movement. Prices, so far as reported, are the same as those lately prevailing, cedar sharing in the better condition equally with pine.

Lath drifts along through the season without any feature worthy of particular notice. Unlike the same commodity in eastern sea board markets, lath here is simply handled from necessity.

Lake charters are somewhat more in request, but at unchanged rates.

Quotations on lumber and shingles are as follows:

| | |
|---|---|
| Dimension, short, green | @ 9 00 |
| " long green | 11 00@13 00 |
| No. 2 boards and strips | 9 50@11 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@18 00 |
| Shingles, standard | 1 95@ 2 10 |
| Shingles, extra | 2 10@ 2 30 |
| Cedar | 1 65@ 1 80 |
| " clear | 2 15 |
| Lath | 1 20@ 1 50 |

Lake freight rates are quotable as follows:

| | |
|---|---|
| From Grand Haven, dry | 1 12½ |
| From Muskegon, by steam | 1 12½ |
| White Lake, dry | 1 25 |
| Ludington | 1 25 |
| Manistee | 1 25@1 37½ |
| Frankfort | 1 50 |
| Menominee | 1 37½ |
| Cheboygan, Duncan City, St. Ignace | 1 37½ |
| Alpena | 1 50 |
| Manistique | 1 50 |

AT THE YARDS.

The first half of the past week is adverse to trade, on account of the extreme heat and the following unusually heavy rainstorm, yet it can be safely said that within the past three or four days there has been an increase of orders and more stir about the district in setting in empty cars, loading and preparations for shipment. There are visible signs that the August trade is beginning. It is likely that within the coming week the revival of demand and shipment will be so evident that nobody will fail to see it. If it were not for the comparatively high freight rate to southwestern Missouri river points there would even now be a considerable rush of lumber in that direction.

When the southwestern high rate blockade is taken into consideration, the amount of trade that is being done, and the revival that is beginning, are encouraging features which go to show that the wholesale business of this city is not wholly dependent on the Kansas demand. This state is now calling for a great deal of lumber. It is true that the Illinois trade is largely controlled by certain houses, and all do not get a direct benefit from it; yet in an indirect way they do, as, in a sense, the lumber held by dealers here is common stock, so that when any section of the trade is making heavy shipments, all are called upon for assortments, and thus the general trade is benefitted.

As a matter of fact the midsummer dullness has been exaggerated. Inquiry from yard to yard discloses the fact that in numerous instances the year's sales, and the sales for July, in individual yards, have exceeded the business for corresponding periods of last year, from 15 to 30 per cent. Some yards have sold about as much lumber this year as they did last, and a few have not sold as much. Altogether a fair trade has prevailed. This is shown by the broken state of assortments of dimension, and a depletion that amounts to a scarcity of some lengths and sizes. The advance of dimension on the cargo market is an evidence that this class of lumber is wanted; and why wanted if it has not been sold? for everybody knows that there was a heavy stock in pile at the close of navigation last year. Here we are, at the present juncture, with a promising fall demand just beginning, with generally good crops to sustain it, with depleted stocks of dimension, stiff prices on the market at the late advance, and all selling that is offered, while at the same time the dealers are trying to force sales in the country, in advance of the season, with cut lists, in some instances, it is feared. Could trade folly present a more characteristic spectacle?

The late breeze in regard to shingles seems to have somewhat subsided, though it is claimed that the advance of 10 to 15 cents a thousand is firmly maintained.

An estimate made by the secretary of the Lumberman's Exchange, based on the partial returns on hand, indicate that the stock on hand in the yards of this city, August 1, amounted to 464,000,000 feet, or 89,000,000 feet less than last year on August 1st. If this estimate is approximately true, it shows the July trade was larger than many suppose, since receipts during July were large and steady, reaching nearly 200 cargoes for each week of the month. During the last week of July receipts were heavier than for the corresponding week in 1884.

Receipts of lumber, shingles, etc., from Jan. 1st to August 6th as reported from the Lumberman's Exchange:—

| RECEIPTS. | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 118,012,000 | 54,489,000 |
| 1884 | 115,473,000 | 51,878,000 |

FROM JANUARY JAN. 1, 1885, TO AUG. 6, 1885, INCLUSIVE.

| RECEIPTS. | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 828,552,000 | 306,394,000 |
| 1884 | 995,888,000 | 479,567,000 |
| Decrease | 167,326,000 | 173,173,000 |

STOCK ON HAND JULY 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 418,132,353 | 470,292,195 |
| Shingles | 233,865,600 | 295,843,825 |
| Lath | 46,166,544 | 46,889,385 |
| Pickets | 1,871,609 | 1,331,104 |
| Cedar posts | 554,777 | 297,545 |

LAKE RECEIPTS FROM JAN. 1 TO AUG. 6.

| | |
|---|---|
| Lumber | 395,388,310 |
| Shingles | 279,537,000 |
| Lath | 20,175,000 |
| Wood, cords | 16,396 |
| Posts | 2,245,464 |
| Railroad ties | 1,077,485 |
| Slabs, cords | 18,052 |
| Bark, cords | 9,182 |
| Poles | 15,635 |
| Spiles | 1,000 |

## QUEBEC.

The *Chronicle* of August 7th says:—The week has been exceedingly dull and we hear of no transactions. A few vessels have arrived, but merchants seem to have timber and deals on hand without making any new purchases.

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c, measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine | 1,521,408 | 1,138.836 | 1,104,731 |
| White Pine | 2,028,558 | 1,113,903 | 1,105,565 |
| Red Pine | 162,302 | 198,516 | 43,313 |
| Oak | 1,151,280 | 480,478 | 1,108,357 |
| Elm | 246,255 | 599,574 | 742,874 |
| Ash | 178,705 | 371,722 | 181,824 |
| Basswood | 1,826 | 4,415 | 47 |
| Butternut | 889 | 1,088 | 3,054 |
| Tamarac | 53,802 | 18,004 | 1,983 |
| Birch & Maple | 269.827 | 185,111 | 305,502 |
| Masts & Bowsprits | —pcs | —pcs | —pcs |
| Spars | — pcs | 32 pcs | 17 pcs |
| Std. Staves | 429.7.2.9 | 16.6.2.22 | 45.8.2.10 |
| W. I. Staves | 372.0.3.9 | 69.8.1.23 | 81.8.0.20 |
| Brl. Staves | 87.1.1.27 | 0.6.2.13 | 195.9.3.25 |

JAMES PATTON,
Supervisor of Cullers.

Quebec, Aug. 7.

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

THE cut of second growth pine in Maine, last year, was estimated at 25,000,000 feet. Most of it was cut into box boards.

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₱ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in. | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black waluut, ⅞ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ⅞-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅞-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 0 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₱ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| " Cedar | 2 75@ 3 20 |
| Lath, No 1 | 1 75@ 1 90 |
| " No 2 | 1 00@ 1 25 |

## TYNE.

The *Timber Trades Journal* of August 1st says:—The most prominent items in the arrivals of the past seven days have been staves, of which a very large quantity, principally from Finland, have come forward. There are also large arrivals of deal battens, and boards from Swedish ports and from Rangoon one cargo teak. One vessel has also arrived from Quebec. The other items mainly consist of props and other goods from various ports, principally from the south of Norway. Altogether the arrivals are large in amount, and will tend still further to increase a stock already in every department too heavy for the season. The demand has not improved at all; if any difference, it is on the other side, and to all appearances seems not at all likely to give much ground for hope.

## LONDON.

The *Timber Trades Journal* of August 1st says:—The deliveries of floated timber from the docks are apparently still active, and this week we have to record 1,615 loads gone into consumption, against 1,167 loads last. Flooring boards also have been carted away from the Surrey Commercial sheds pretty freely during the period named, 700 standards being the week's quantum, against 664 standards of the corresponding week a year ago. Deals, however, were more actively in demand this time twelvemonth, the comparison being 3,041 standards this year against 3,628 twelve months back, a difference of 587 standards in favor of the week's consumption of last year. Ten thousand standards is a big difference to make up, and we fear there is very little prospect of approaching anything like an equal return in the respective consumption of this and last year, when the final summary comes to be

made up. Even adding the excess in the deliveries of timber during the present year the actual consumption of wood material, mahogany and hardwoods included, the balance will still be on the side of 1884.

Things generally are quiet and freights show very little improvement on this side though by recent advices from Quebec 52s. 6d. has been done and is still obtainable, which would seem to show rather a hardening tendency for Atlantic traders.

The sale at the "Baltic" on Wednesday went off rather briskly recollecting that it is now about the middle of the holiday season and many members of the trade are out of town or on the Continent.

There was an evident disposition amongst those present to avail themselves of the opportunity presented of getting goods at very favorable prices, taking their chance of the market improving later, a by no means unlikely contingency.

### GLASGOW.

The *Timber Trades Journal* of August 1st says:—The result of the sale of mahogany and remainder parcel of birch, which took place here on 29th inst., is noted below. A longer interval than usual has now elapsed since brokers have called a sale of Quebec timber, but we shall have one to report next week which should prove attractive, being the first since the arrival of the new season's log timber from Quebec. From all reports there is at present an extreme quietness in business.

At the last Dean of Guild Court there were nine applications, most of these for alterations on premises.

Housebuilding at present going on is chiefly n the suburbs, where self-contained houses are being put up pretty extensively.

The property market is in a stagnant condition. Of the properties exposed by public roup this week, and amounting altogether to £37,590, none sold.

The following were the prices obtained at Messrs. Edmiston & Mitchell's auction sale at Queen's Dock, Glasgow, on 29th ult.:—

323 logs Minatitlan mahogany, measuring 91,-173 feet, Liverpool sale measure, sold from 2½d. to 11½d., averaging 3 19 32d. per foot.

9 mahogany log ends, at 2¾d.; 4 cedar ends at 2¼d.

Remainder of cargo, comprising 37 logs mahogany and 6 logs cedar, withdrawn.

A parcel of 12 logs Pictou birch timber, 14 to 16 inches square, was cleared out at 1s. 1½d. to 2¾d. per cub. foot.

The above cargo of mahogany was chiefly small sized wood, the demand for which is limited, dealers having a good stock on hand of similar description, and consequently there was feeble competition at the sale for small logs, but the few logs comprised in the cargo that were of large size and good quality and make were briskly compted for. Mr. A. Melville Mitchell ably officiated as auctioneer.

### LIVERPOOL.

The *Timber Trades Journal* of Aug. 1st, says:—The import has shown some falling off in quantity during the past week; still the docks and quays are busy with the cargoes of Quebec goods now landing.

We do not notice, however, that any large orders for these goods are going into consumption, though this could, perhaps, hardly be expected in the dull and lifeless condition in which business stands at present.

The Mersey Docks and Harbour Board through their brokers, Messrs. Duncan, Ewing, & Co., have issued invitations for quotations for the supply of about 20,0000 cubic feet of square and waney boare pine timber, about 10,000 cupic feet of rock elm, and other quantities of Baltic fir, spruce deals, &c., for delivery at their dock yards.

This coming at the perion when many cargoes are landing will, no doubt, be eagerly competed for, and further will help to make next month's consumption assume fair proportions, as all the wood is for immediate delivery.

Before these lines are in print the decision of the Parliamentary Committee on the Manchester Ship Canal Bill will probably be announced, and it is anticipated here that the promoters will this time be successful, though with what modifications or limitations cannot be ascertained yet. On Tuesday the Liverpool Chamber of Commerce decided to request the committee, in event of the measure being passed, to bind the promoters to retain sufficient funds in hand to restore the estuary of the Mersey to its original state, provided the canal works hereafter prove injurious to navigation.

The strike of the cotton spinners in the Oldham district still continues, and it cannot but have a bad effect upon the general trade of the district, in which the timber along with others must also suffer.

LIVERPOOL TIMBER SALES.

On Tnursday last, the 23rd ult., Messrs. Furnworth & Jardine offered about 150 logs of Miramichi birch, maple, and elm; the greater part of it was, however, withdrawn, the prices bid not being up to the limits of the sellers, and then the same firm offered a cargo of wrecked timber shipped from the Island of Flores, and sold "on account of whom it may concern." 297 logs St. Sohn birch sold in one lot at 9d. per foot, 10 logs hewn pitch pine bought at 10d. per foot, 25 logs Quebec white pine 11½d. and 12½., and about 1,320 spruce deals £3 5s. per standard. Of course the timber and deals were considerably damaged, chafed, and discoloured, as may easily be supposed from the prices obtained.

### DROWNED IN A CANAL.

DUNDAS, Aug. 11.—Another has been added to the long list of casualties in the Desjardins canal. Yesterday morning John R. Clough, R. Dixon and Mr. Mattock hired a boat from Mr. Reynolds, who keeps the Dundas boat house, and rowed to Hamilton to take in the civic holiday sights. They left to return home about 9.30 p.m., and after proceeding two miles up the canal one of the party rose to change seats. In doing so he capsized the boat, launching all three into the waters of the canal. Mattock was fortunate enough to seize the side of the boat and retain his grip until assistance arrived. Dixon and Clough being both unable to swim sank at once. The bodies of the unfortunate men were recovered this morning. Clough is a native of Bradford, Eng., and has no relatives in this country. Dixon's mother, brother and sister reside in Toronto.

### THE DEATH OF THE MAHDI.

A letter from Suakim, received in Vienna, gives the following particulars as to the Mahdi's death: Mohammed Achmet, it says, fell ill on Friday, July 19, at 2 p.m., and by his own desire was at once conveyed to a tent outside the camp. No doctors being at hand two of the captive missionaries, who had medical knowledge, were summoned to the sick bed. They immediately said the patient was ill of the smallpox, and later in the day, on the disease assuming the most virulent form, they told the patient to prepare for the worst. The Mahdi thereupon called his nephew Abdullah, named him his successor and gave him his sword. On Saturday evening the patient was in a condition past hope. He then bade a solemn farewell to his family and adjured his successor to continue the war against the Christians. He expired at 5 a.m. on Sunday, the 21st, and was buried at sunset in a grave within his tent. The tent was afterwards burnt.—*N. Y. Evening Post.*

### Fire at Midland.

MIDLAND, Aug. 11.—A fire broke out yesterday morning in the roof of Messrs. Chew & Weeks' grist mill. The top story was completely destroyed with machinery contained therein. The machinery, etc., in the other stories was removed while the firemen confined the fire to the top story alone. The insurances on building and contents are as follows:—Citizen's of Montreal, $1,000 on building and machinery, partial loss; Gore Mutual, $2,000 on building and machinery, partial loss; Royal Canadian, $500 on shingles, slight damage; Fire Insurance Association, $1,000 on stock, partial loss. The fire originated from the smoke stack of the shingle mill run in connection with the flour mill.

The woman's question—"Now, isn't this a pretty time of night for you to get home?"


MONTREAL SAW WORKS!

CHAS. M. WHITLAW, Manager. MONTREAL.

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

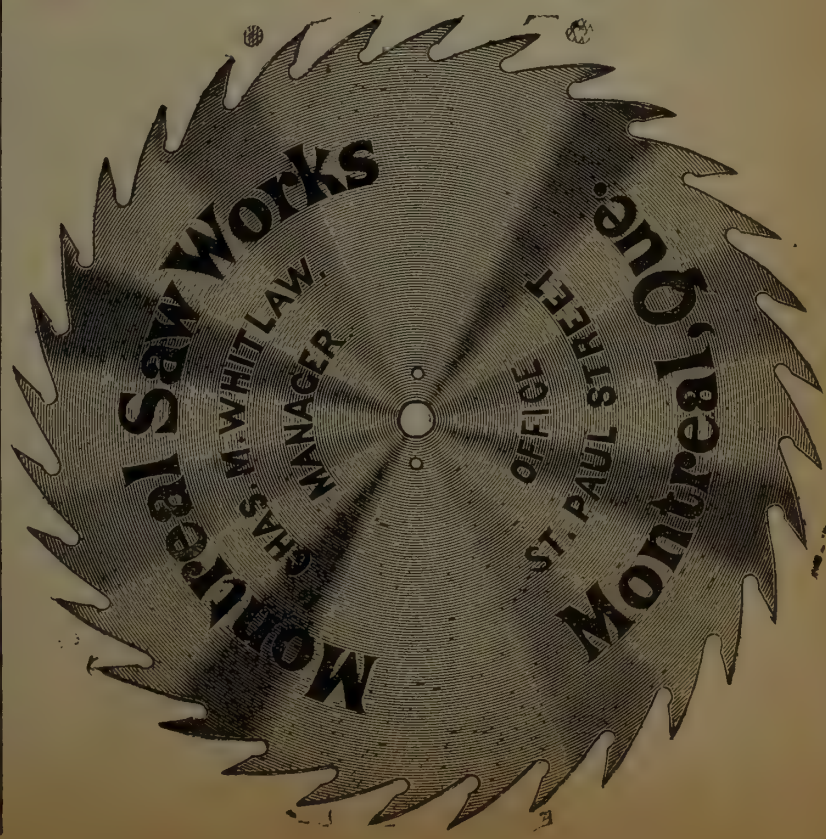
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.




Catalogues and Price Lists furnished on application.

# The Hancock Inspirator

**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

## Over 70,000 Now in Use.

MANUFACTURED BY THE

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MONTREAL, P.Q. - - CANADA

**Manufacturers of Inspirators, Ejectors, and General Jet Apparatus.** 1yL1

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LUMBER DRIVERS'

# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

*ST. JOHN, N.B.*

**Samples and Price Lists sent by mail on application.** L2

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# HUGH GIBSON,

MANUFACTURER OF

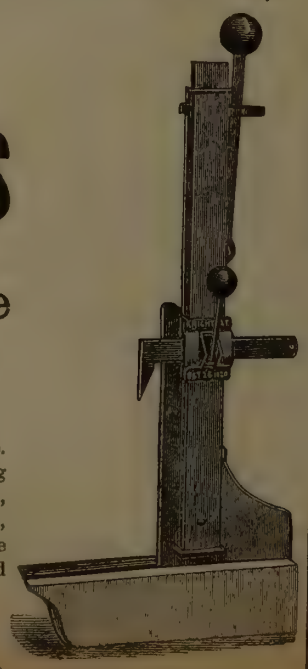
KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



EXCELSIOR DOG.

**Manufactured by HUGH GIBSON, CHATHAM.**

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# F. E. DIXON & CO.

**Manufacturers of**
**Patent Lap-Joint Star Rivet**

# LEATHER BELTING

*70 KING ST. EAST, TORONTO.*

## To Mill Owners, Manufacturers & others requiring Leather Belting

**Do not buy any Belting unless with DIXON'S PATENT LAP JOINT. It will last longer and do more service than any other. Please note the address, 70 KING ST. EAST, and send for Circulars and Latest Discounts.**

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# PETER ROBERTSON

CHAUDIERE, - OTTAWA,

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# LUMBERMANS' TOOLS!

**Which took every honor awarded at the Centennial Exhibition.**

*THE CELEBRATED*

## Lightning Cant Dog.

PETER ROBERTSON, Chaudiere, Ottawa.
20Lly

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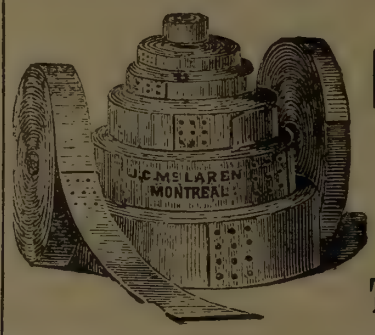
ESTABLISHED 1856

# OAK TANNED BELTING

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## Best Belt ever offered

*IN CANADA*

*EVERY BELT GUARANTEED*

The Best Mills in the Country use it.

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

**For Discounts and Terms, Address**

## JNO. C. McLAREN,

292 & 294 ST. JAMES STREET WEST, MONTREAL.

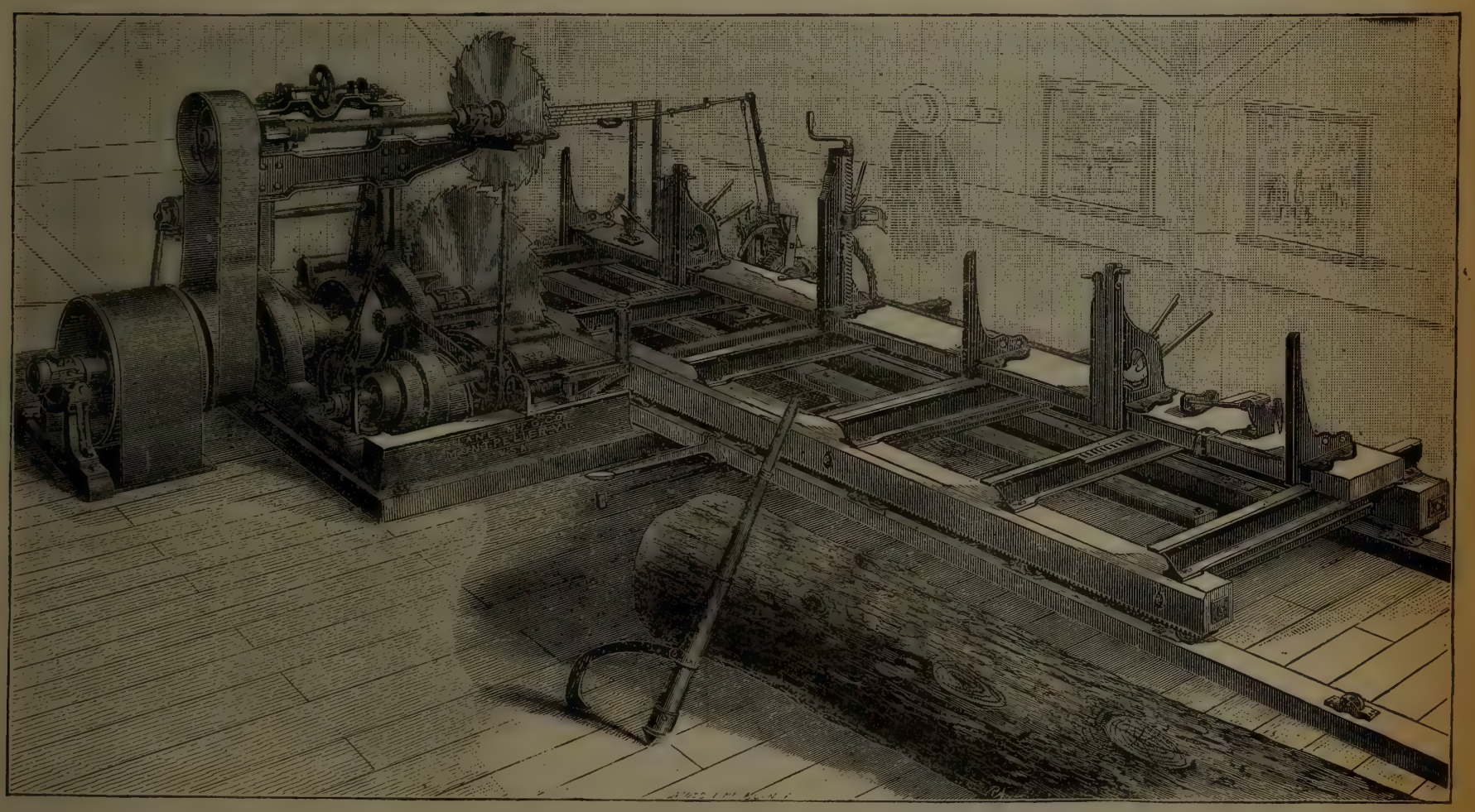
**Lace Leather, American Rubber and Cotton Belting, etc., always on hand** 15mL99

# THE LANE MANUFACTURING COMPANY!

## MONTPELIER, VERMONT,

MANUFACTURERS OF LANE'S CELEBRATED

# CIRCULAR - SAW - MILLS



Circular Saw Mills,
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Double and Single Traveling Bed Planers, Shingle Bolters,
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Mill Supplies, Etc., Etc.

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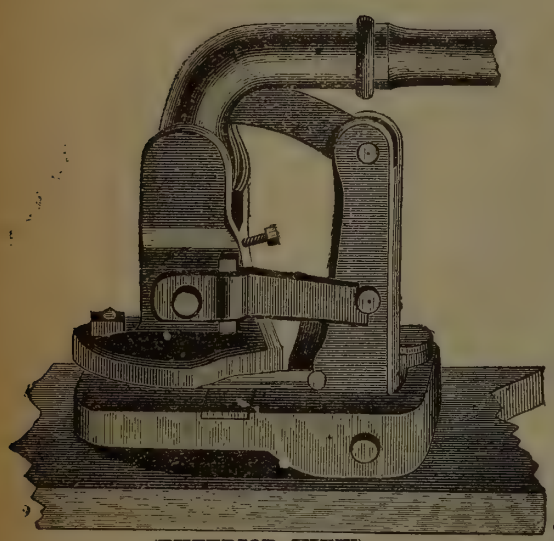
# THE WM. HAMILTON MANUFACTURING CO'Y
LIMITED.

## Peterborough, - Ontario

## Manufacturers of Saw Mill and General Machinery.



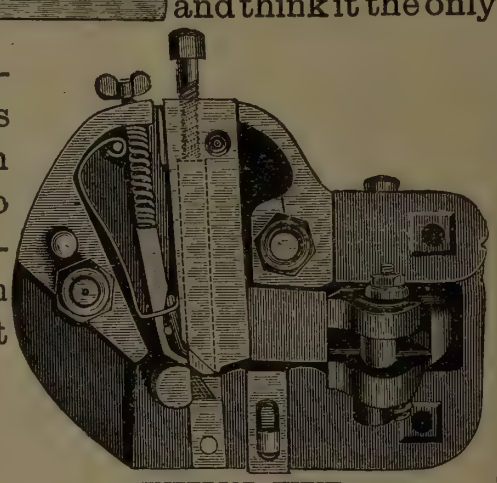
(EXTERIOR VIEW)

### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

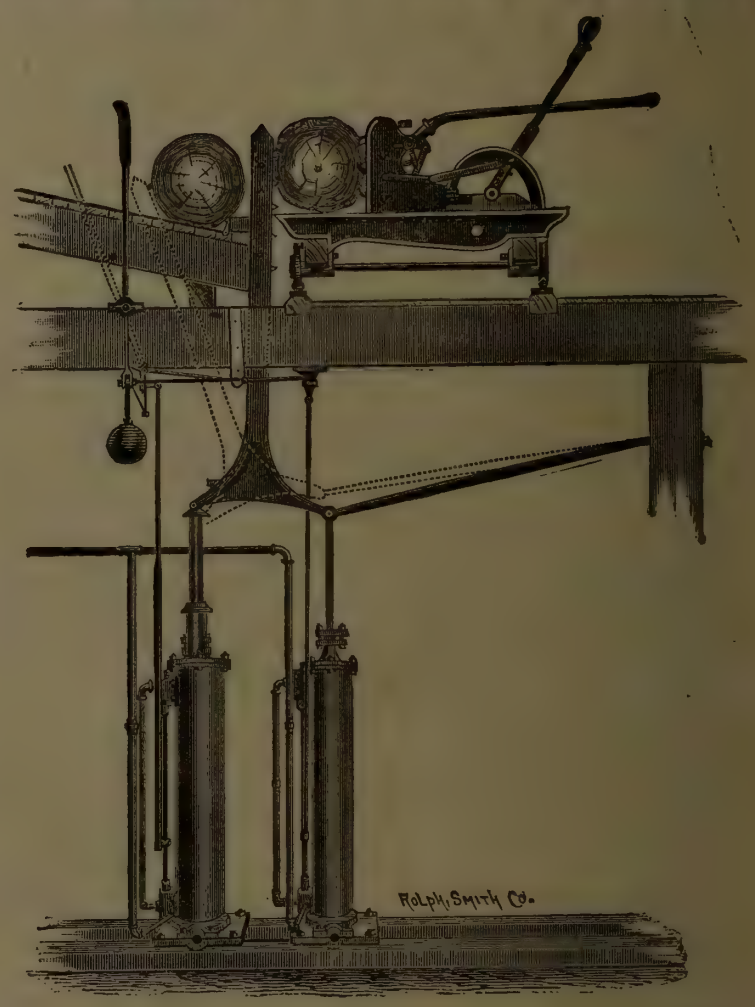
*TRY IT!*

**Price $100, Cash 30 days.**



(INTERIOR VIEW)

### THE KALAMAZOO STEAM "NIGGER"

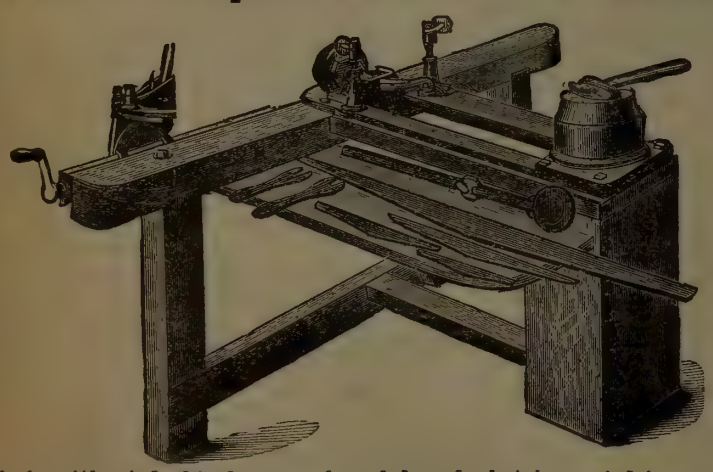



It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springimg Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

**We Guarantee each Machine in every Particular.**

## Covel's Improved Saw Bench

*Price $50, Cash 30 Days.*



*Price $50, Cash 30 Days.*

This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition or the File Room.

# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

## *Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

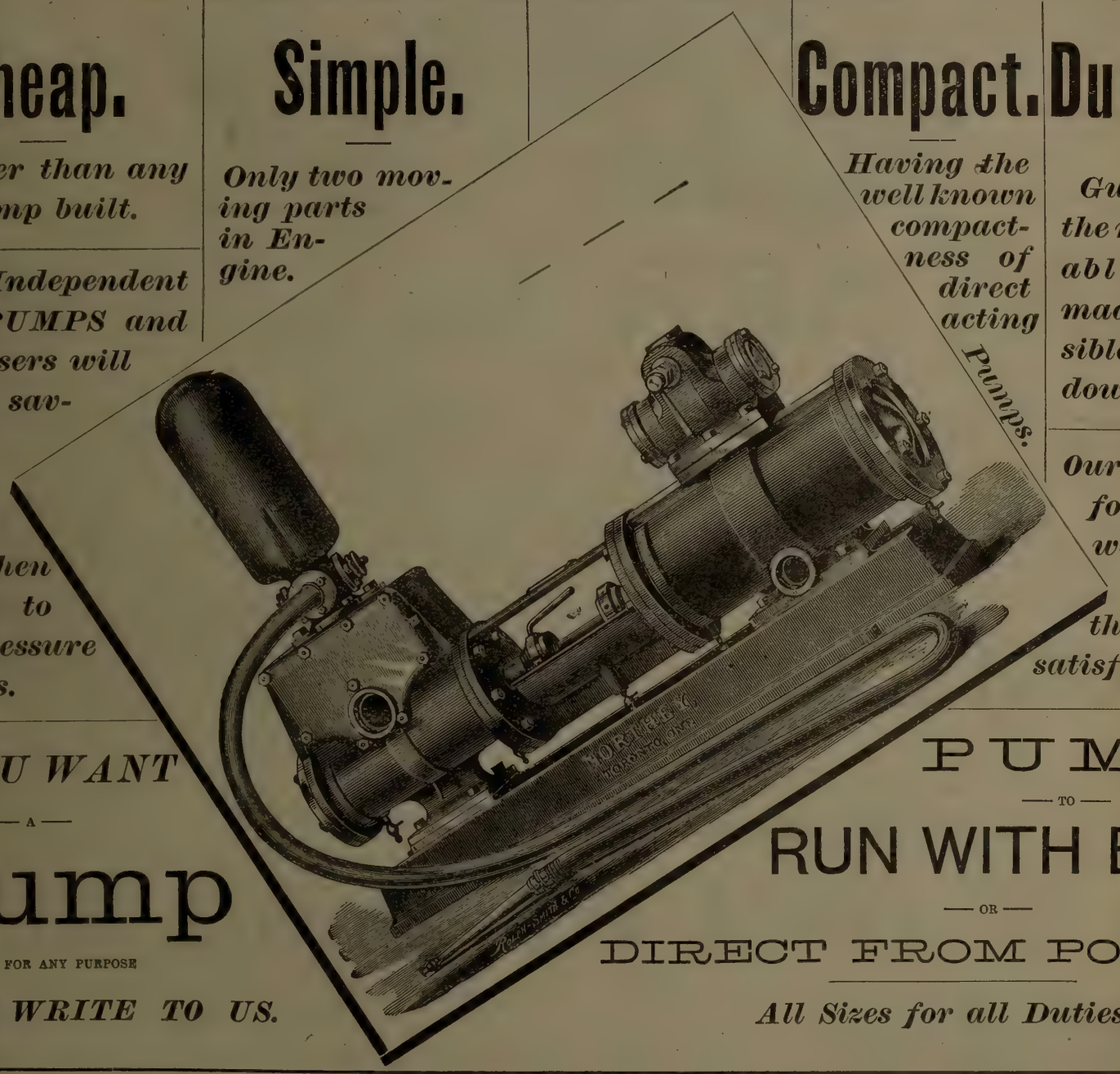
**Cheap.**

*Cheaper than any Pump built.*

*Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.*

**Simple.**

*Only two moving parts in Engine.*




**Compact.**

*Having the well known compactness of direct acting Pumps.*

**Durable.**

*Guaranteed the most durable Pump made; impossible to break down.*

*Our PUMPS for general water supply give the greatest satisfaction.*

*IF YOU WANT*

— A —

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FOR ANY PURPOSE

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**PUMPS**

— TO —

**RUN WITH BELT**

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**DIRECT FROM POWER**

*All Sizes for all Duties.*

***Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.***

## WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

# SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

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## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

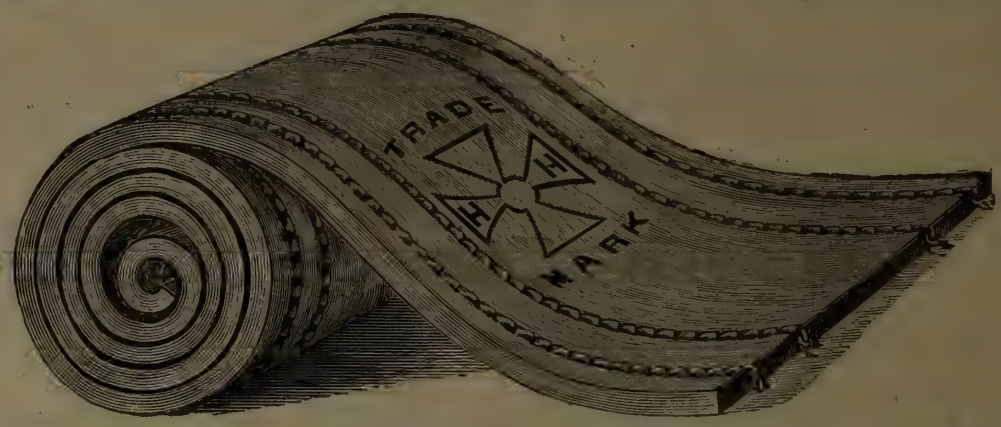
**TESTIMONIAL.**

IRA GOULD & SONS, CITY MILLS,
Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.




**TESTIMONIAL.**

PECK, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

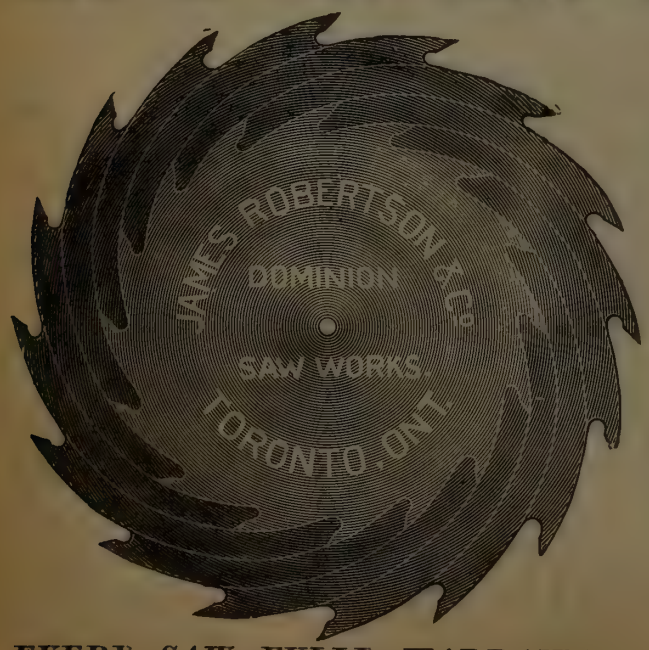
***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

# Dominion Saw Works!

## JAMES ROBERTSON & CO.

## 253 to 267 KING ST. WEST, TORONTO, ONT.




*EVERY SAW FULLY WARRANTED.*
*Prices on Application.*

*MANUFACTURERS OF SAWS*

Circular, Shingle, Gang, Cross Cut,
Concave, Mulay, Drag, Grooving.

THURBERS ROYAL

## Anti-Friction Babbit Metal

IMPORTERS AND DEALERS IN

Band Saws, Emery Wheels, Files,
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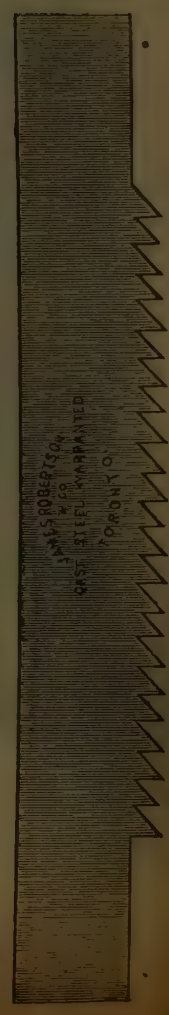
Saw Gummers, Leather Belting, Iron Pipe, &c.

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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

**VOL. 5. PETERBOROUGH, ONT., SEPTEMBER 1, 1885. NO. 17.**


### THE WALNUT BURR.

The burr of the walnut tree, the most valuable and one of the most beautifully figured woods the world produces, is found principally in Persia. The trees of England rarely have much color on account of the climate not being sufficiently hot, but fine walnut trees are found in the south of France, Spain, Italy, and in the same latitude of Turkey, Circassia, and so on to Persia. The burr of the tree is an excrescence, similar to a wart on one's finger, which is supposed to result from disease, and is mostly found growing at the trunk, where it is formed into a mass of what is termed "tis," producing the magnificient figure which is seen on pianos and other furniture.

Few people even in the timber trade have any idea of the valde of a fine large burr of superior color, size and soundness. These burrs weigh from about 500 weight to 2 tons or more, and some have been known to produce as much as £2,000 each.

Some 15 years ago walnut burrs were to be found in quantities around the neighborhood of the Black Sea, although not of the best quality, but owing to the great cutting that took place on account of the immense demand, especially from America, there is at the present time a great scarcity of the wood in our markets; another reason is that the transport is extremely difficult, as in the interior of Persia very often there are not any roads, and the cost of making them renders it too expensive. Of late years, being unable to get the burrs out whole, they have taken to cutting them into pieces about six to nine inches thick, termed "platiers." The original cost of the walnut burr is usually very small, from perhaps 10 shillings to a few pounds, so it is solely the heavy expense of transport that makes this wood so very dear. At the present time a very fine lot of burrs in the solid is worth at least £250 per ton here, and would be snapped up at once. Some four years ago a quantity of this wood was cut in Cashmere by a Frenchman who had travelled through Persia buying carpets, etc., for a large Paris house; the weight of the parcel was about 25 tons, and was sold for a considerable sum, but on account of the long time it took to transport this wood, the sun had very nearly cracked it through, as it had only been cut in thickness of about eight inches, so under these circumstances the venture did not turn out very successful. The last year or so fine wood has got scarcer and what pianoforte manufacturers would have had to pay for good figured veneers, one can hardly say, but fortunately for them, black veneers came into vogue. This veneer has had an immense run, and has been sold to the confiding public as ebonized, but in reality it was mostly the refuse sap of walnut and other woods (sold usually as guaranteed pear tree) which underwent a process of dyeing. It is most trying and injurious to the health of workmen, engaged in the making up of this wood, and it is a well known fact in the trade that even when finished it is unsatisfactory, no matter what pains are taken in the finishing and polishing, it very soon loses all its brilliancy, and in a short space of time looks dirty and dull. The price of this once fashionable wood is about 10s. per 100 feet, a slight difference good walnut that costs 1s. 6d. to 2s. 6d. per foot in the veneer.

The walnut burrs upon arriving either at Paris or London, are at once placed on a saw pit and squared, afterwards they are put in a lage wooden house and steamed for about fifty hours; they are then fixed on a knife cutting machine—one of the latest improvements in which can be seen at Messrs. Esdaile & Co.'s city saw mills—and cut into veneers, the thickness of the sheet being about 40 to the inch. Knife-cutting machines were invented in Paris about 50 years ago, but did not cut with the same precision as at the present time, for it is now possible to get easily 150 sheets out of one inch thickness.

The route to the present burr cutting district is upon the road which Alexander Condie Stephens took on his return from Afghanistan, viz., London, Berlin, Dannaberg, Kharkoff, Rostooff, Vladikarkas, Tiflis, and on to Baku, where search commences for the timber. An Armenian has just arrived (a Monsieur Krisdosdurian) in London with a parcel of burrs from these parts, and can be seen at the Rum Quay, West India Docks, where anyone having the curiosity to view the goods can do so, and it will be found well worth the pains of any one not knowing what these burrs are like to take the trouble of inspecting them. On following them to the mills one would be surprised to find such rough looking junks converted into figured leaves equalling in appearance probably the finest tortoise shell.—*Timber.*

### THE CROSS-CUT SAW.

The following remarks on the cross-cut saw, our indispensable implement in the woods, are given in amusing form, but, nevertheless, they have the right ring about them. The writer says the cross cut saw is at the same time one of the most primitive and one of the most generally used implements. It is one of the advance couriers of civilization, and it remains a useful member of society despite its crudeness. It is its very simplicity that has caused it to be so tenacious of its position among needful implements. It requires no foundations, no motor, no special preparation. Where the axe leaves a tree, there the cross-cut takes it; and from the newly fallen log to the ship yard the cross cut is never hung up. Yet it is an aggravating, fatiguing, slow-working affair.

In the first place it requires great muscular exertion from the weakest muscles of the body. In the second, it not only developes one side of the body at the expense of the other, but by unnecessarily fatiguing one side of the body without giving it any reserve member, it lessens the capacity of the operator, already working at a disadvantage with weak muscles to do heavy work. In the third place, in most positions where the log lies upon the ground, the position of the sawyer is uncomfortable, unhealthy, and still lessens his capacity for work. The have, however, been many improvements made in the cross cut, as in other saws. The heavy bow frame strung into an arc has been abandoned. The curved edge of the blade has been brought from the top to the bottom or cutting edge, in order that as the saw wears away in the middle (as all saws do,) the wear of the blade may be taken up and still leave in a capable tool. The shape of the teeth also have been very carefully chosen to suit the varied requirements. Cross cutting has become a real cutting, and not a mere abrasion. The M tooth has been employed to give the best cutting edge with the best facility for sharpening. Perforations have been introduced along the line of the gullets to lessen the time, labor, and expense of filling, while it insures the teeth remaining at the proper distance and size. The gullets are made deeper at the centre than at the ends, for the same purpose that the cutting edge itself has been made convex. The handle has become a convenient affair, by which the tool may be firmly grasped and guided, and modifications have been introduced by which one man may do very heavy cross-cutting. But with all these improvements, the cross cut wears a man out, makes him lopsided, and brings into use only the muscles of his arms and shoulders. —*Journal of Progress.*

### ACETIC ACID FROM WOOD.

It is well known that most of the acetic acid sold in the United States is produced by the distillation of wood, but some details of the operation may be new to our readers. Among other volatile products of this distillation are marsh gas, olefiant gas, and liquid at ordinary temperatures, benzole, toluol, phenol, etc. This distillation is usually carried on in iron ovens or retorts into which the wood is introduced.

In some cases the more volatile matters, such as water mechanically absorbed or contained as sap, are driven off by the application of a lower degree of heat, and in others this is not considered necessary. In some factories wood is treated both for its volatile products, such as acetic acid, benzole and creosote, and for charcoal. In these the charge is ignited with free access of air until carbonized, which is predicated when the smoke given off becomes bluish instead of dark and heavy. The air supply is then shut off, and in place of a clean combustion the decomposition desired by the manufacturer is effected. The yield of acetic acid, as well as of liquid products, with the exception of benzole, in general, is less when the wood is rapidly charred.

In operating upon refuse wood, such as sawdust, spent dry stuff and tan bark, retorts of special form are necessary, as the application of heat is almost immediately followed by the formation of an exterior coating of hard carbon, which effectually protects the interior of the mass from the action of heat. This fact prevented, for a time, the utilization of such materials, but the difficulty was overcome by exposing only thin layers of material to the heating surface. The retort for this operation consists of a horizontal cylinder of iron, containing for its entire length a screw, which, while moving the materials steadily on by its evolutions, keeps it evenly distributed over the bottom of the retort. The cylindrical retort is so built as to expose the greater part of its length to the heat of a furnace, while at one end is a provision for feeding the material regularly. The other extremity has two branches, one running directly downwards terminates in a tank of water, into which the carbonized substances falls; the other leads to the condenser.

Where wood is operated in billets, simply cast or wrought iron ovens capable usually of holding about one half cord are used, and the vapors conducted to a suitable condenser. The amount of acid and charcoal obtainable from a given weight of wood varies with the kind of wood employed, but in general may be stated as something under 50 per cent. of charcoal. This acid is the crude product containing tarry and other empyreumatic products known in commerce as pyroligenous acid. It is purified by subjecting to a slight heat, to separate benzole, and saturating the acetic acid with lime or soda. The salt is calcined in order to decompose the tarry matter present, and afterward distilled with a sulphuric or hydrochloric acid, which combines with the base and sets acetic acid free. This part of the manufacture is not always carried on by the distiller of wood, who must, from the nature of his crude material, operate near the source of his supply. Therefore, the acetate of lime is a commercial article from which the manufacturing chemist may produce the article in question. One advantage of this is that the solid acetate is more cheaply transported than the liquid acid.

THE *Timber Trades Journal* of August 8th says:—It is somewhat remarkable that notwithstanding the stagnation of trade, prices of Quebec pine have kept so steady, whilst the values of other descriptions on the Baltic side have experienced such fluctuations of an enfeebling character. We are glad, however, to note these latter are showing a firmer tendency now, which will probably get more established as the season advances, and when the lessened import has had time to operate.

## AUSTRALIA.

The monthly circular of Messrs. Lord & Hughes, dated Melbourne, June 27th, says :—

Since our last circular on 30th ult. public sales have been fewer in number, but the offerings of nearly all descriptions have been ample for all requirements, as the trade are well stocked, and do not care to purchase largely during stock taking.

We have to report a slightly better feeling in Baltic deals and flooring and in Oregon timber, American lumber remaing at about the same price as at close of last month ; but care has to be taken by importers not to press sales more than is required.

Trade from the yards continues fairly active, but a slight falling off in demand must be reported, as building operations at this, our mid winter season, are not as vigorous as they were.

RED DEALS.— Imports : Nil. Sales by auction have been cargoes ex New Zealand and Sumarlide, balance ex Gevalia, and small lines ex G. P. Harbitz and Wm Le Lacheur ; W crown R 9x4 realizing 6d., 9x3, 6d. ; R R R 9x4, 4 15-16d., 11x3, 5⅞d. to 5 5-16d., 9x3, 4 15-16d. to 4½d. ; D D D 11x3, 5⅜d. to 5d., 9x4, 4 13-16d. to 4⅝d., 9x3, 4½d to 4d.

SPRUCE DEALS.—Imports : Nil. The cargo ex Obed Baxter was all sold by auction on 23rd inst., with exception of about 1,000 pieces 9x3 ; 11x3 realised 4⅛d., 9x3, 3 5-16d. to 3d., 7x3, 3d. to 2¾d., 8x3, 3d. to 2 13-16d.

OREGON TIMBER.— Imports : 338,126 feet super. This parcel arrived per Nellie May, from Port Townsend, and has not yet been offered at auction. The cargoes, ex Malay and Magne, were disposed of at auction on 23rd inst., and that ex Cowlitz, on 2nd inst., at prices ranging from £6 2s. 6d. down to £5 10s.

LUMBER.—Imports : Clear pine, 194,431 feet super ; white pine shelving, 173,274 feet super. These lines arrived per Great Admiral, from New York, and were submitted at auction on the 16th inst., whtie pine shelving realizing £10 to £12 5s. ; dressed clear pine, £13 to £13 2s. 6d. The carpenter's clear pine and undressed ceiling and shelving were withdrawn for lack of competition.

PITCH PINE.—Imports : 10,406 feet super. This parcel arrived per Talisman, and was sold by auction on 23rd inst., at £5 12s. 6d. per 1,000 feet super.

REDWOOD.—Imports : Nil.

FLOORING AND WEATHERBOARDS.—Imports : 1,742,400 feet lineal. The arrivals have been—Salamis, from London ; Skelmorlie, and Blairgowrie, from Glasgow. Sales by auction have been ex G. P. Harbitz, Skelmorlie, Magne, Loch Long, Java, Thor, Erato, and Augusta, at following prices: —Red, 6x1⅛, at 10s. 6d. to 10s. 3d. ; 6x⅞, at 8s. 6d. to 8s. 3d. ; 6x¼, at 6s. 9d. ; 6x¾, at 7s. ; 6x⅝, at 6s. ; 4-out weatherboards, at 6s. White, 6x1⅛, at 9s. 6d. ; 6x⅞, at 8s. 3d. to 8s. 9d. ; 6x¾, at 6s. 9d. to 7s. 1d. ; 6x⅛, at 6s. 9d. to 7s. 1d. : 6x¼, at 6s. 9d. to 6s. ; 6x⅝, at 6s. 6d. ; 4 out weatherboards, at 6s. to 6s. 3d. By the foregoing it will be noticed 6x⅛ lining has advanced considerably in price.

KAURI PINE.—Imports : 200,000 feet super. The only arrival has been Malay, from Manakau. Sales by auction have been confined to flitches, ex Louise, at 11s., and various lines from wrecked cargo, ex Robin Hood. Logs are slow of sale, in consequence of large stocks now in hand.

CEDAR.—Imports : 168,300 feet super. Sales by auction have been of usual descriptions. Logs, ex steamers, at prices regulated according to size and quality.

DOORS.—Imports : 125.

LATHS AND PICKETS.—Imports : Lath, 852 bundles ; pickets, 106 bundles. Laths are in plentiful supply.

SLATES.—Imports : 221,919 pieces. These arrived per Wallacetown and Westgate, from Liverpool, and Great Admiral from New York. The parcel of Blue Bangor American slates, ex latter vessel, was sold publicly on 16th inst., 20x10 realising £9 5s., 24x12, £13 10s.

PLASTER.—Imports : 500 barrels. There is no change to report in the market for plaster, and no sales privately have come under our notice.

CEMENT.— Imports : 7,065 barrels. The market for this description of building material has undergone no change since of last. Sales privately have been reported of Gostling's and Knight, Bevan & Co.'s., at 14s. 3d. to 14s. 6d. ; outside brands, at 12s.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3 ; T. and G. flooring at per 100 feet running ; Oregon timber, Redwood, clear pine, shelving, ceiling, per 1,000 ft. super ; Kauri pine and cedar logs at per 100 ft. super ; laths, pickets and slates at per 1,000 pieces. Shorts are all lengths under 12 ft.

## A NEW INDUSTRY.

Theoretically, Nova Scotians are clever men ; practically some of them are not. We have within this province resources, which, if properly developed, would greatly increase the wealth of our people. They are allowed to be idle, because our capitalists lack the practical knowledge which is required to ensure the success of a new enterprise. In the early days of gold mining in this province many of our moneyed men were bitten ; to-day these mines, under the management of skilled men, are paying well. There is no country in the world better adapted for the manufacture of the sulphite wood-fibre than in this province. We have the requisite minerals in abundance, with an almost inexhaustible supply of the wood required, aud these with cheap fuel should enable us to successfully complete with the world in this new and growing industry. Our lumbermen are year by year forced to go further back from the lakes and water courses to obtain suitable timber, thus enhancing the cost of production to no inconsiderable extent ; but they are leaving behind them the small and younger growth of timber which is admirably adopted for making wood fibre, and as the land is capable of producing a new growth within twelve or fifteen years, the supply of raw material should be unlimited. We have it on good authority that the average annual yield from our forests is about 125 million feet, board measure, which if sold at a profit of $2.00 per thousand feet, would realize $250,000 to the manufacturers. If an equalamount of wood were manufactnred into wood fibre, it would produce 90,000 tons, which would net after paying all expenses $20 per ton, total profits being $1,800,000. The wood fibre when manufactured would probably sell at $60 per ton, which upon the above quality would be $5,400,000 which would be distributed among our lumbermen, miners, quarry men, farmers, millers, ship and real estate owners. The lime stone and pyrites required in the manufacture of wood fibre are found in large deposits in this province, and as there is no fear of glutting the market, the industry is one which could not fail to prove remunerative. There are in Norway 50 pulp mills which produced in 1884, 100,000 tons of pulp. In Germany, Austria, and Switzerland, there are 60 ground wood pulp mills and 80 chemical fibre works, of which latter 60 are producing sulphite fibre. Despite this enormous production the price of pulp and fibre has not fallen materially, notwithstanding the depression of the last few years. The sulphite wood fibre can be produced at one third of the cost of esparto and straw pulps, which are very largely used, and the rapidity with which sulphite wood fibre has been adopted for all grades of paper up to the finest, proves that must fill "a long felt want," and fill it well. England and France consume yearly 315,000 tons of esparto pulp. Wood makes a better pulp, and will in time replace that material. It will thus be seen that we have in this province natural products, which if properly combined and skillfully manufactured would produce a remarkable product, and that 90 per per cent, of the receipts from its sale would find its way into the pockets of our own people. We have the capital and the material required for this industry, but we lack men possessing sufficient practical knowledge to ensure its success. Why do not some of our young Nova Scotians visit the German or Norwegian mills, which would fit them to engage in this enterprise. One year's experience in a large mill would be sufficient to enable them to acquire a thorough knowledge of the business, and this knowledge might prove advantageous both to themselves and to the country at large.—*Halifax Critic.*

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Aug. 1st 1884 and 1885, and also the Consumption for the month of July 1884 and 1885 :—

| | *Stock, Aug. 1st. 1884.* | *Stock, Aug. 1st. 1885.* | *Consumption for the month of July 1884.* | *Consumption for the month of July 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 416,000 ft. | 326,000 ft. | | |
| " Waney Board | 380,000 " | 311,000 " | 305,000 ft. | 96,000 ft. |
| St. John Pine | 22,000 " | 33,000 " | 00,000 " | 25,000 " |
| Other Ports Pine | 63,000 " | 44,000 " | 29,000 " | 0,000 " |
| Red Pine | 69,000 " | 28,000 " | 3,000 " | 0,000 " |
| Pitch Pine, hewn | 661,000 " | 680,000 " | 347,000 " | 115,000 " |
| " Sawn | 479,000 " | 514,000 " | 127,000 " | 78,000 " |
| Planks | 64,000 " | 70,000 " | 41,000 " | 32,000 " |
| Dantzic, &c., Fir | 59,000 " | 63,000 " | 17,000 " | 0,000 " |
| Sweden and Norway Fir | 67,000 " | 40,000 " | 00,000 " | 0,000 " |
| Oak, Canadian and American | 290,000 " | 245,000 " | 78,000 " | 43,000 " |
| " Planks | 265,000 " | 189,000 " | 129,000 " | 40,000 " |
| " Baltic | 12,000 " | 6,000 " | 0,000 " | 5,000 " |
| Elm | 38,000 " | 39,000 " | 31,000 " | 10,000 " |
| Ash | 29,000 " | 23,000 " | 8,000 " | 0,000 " |
| Birch | 63,000 " | 68,000 " | 61,000 " | 76,000 " |
| East India Teak | 29,000 " | 89,000 " | 12,000 " | 3,000 " |
| Greenheart | 37,000 " | 65,000 " | 18,000 " | 3,000 " |
| N. B. & N. S. Spruce Deals | 21,578 stds. | 11,992 stds. | 18,070 stds. | 8,473 stds |
| " Pine | 1,260 " | 157 " | | |
| Quebec Pine & Spruce Deals | 8,123 " | 4,195 " | 3,140 " | 2,593 " |
| Baltic Red Deals, &c. | 3,273 " | 2,615 " | 491 " | 505 " |
| Baltic Boards | 20 " | 68 " | 20 " | 10 " |
| " prepared Flooring | 3,386 " | 2,767 " | 900 " | 978 " |

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of July 1885, and also for the 7 months ending July, 1885 :

MONTH ENDED 31ST JULY 1885.

| | *Quantity. Loads.* | *Value. £.* |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 43,298 | 73,705 |
| Sweden and Norway | 57,510 | 83,982 |
| Germany | 40,300 | 79,940 |
| United States | 14,955 | 50.233 |
| British India | 4,269 | 51,248 |
| British North America | 41,768 | 186,012 |
| Other Countries | 34,820 | 48,184 |
| Total | 236,920 | 573,304 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 191,872 | 407,233 |
| Sweden and Norway | 280,856 | 575,216 |
| British North America | 157,090 | 382,262 |
| Other Countries | 29,042 | 78,388 |
| Total | 658,860 | 1,443,099 |
| Staves, (all sizes) | 15,775 | 58,621 |
| Mahogany (tons) | 3,196 | 31,005 |
| Total of Hewn and Sawn | 895,780 | 2,016,403 |

SEVEN MONTHS ENDED JULY 31ST 1885.

| | | |
|---|---|---|
| *Timber (Hewn).* | | |
| Russia | 115,396 | 215,650 |
| Sweden and Norway | 311,717 | 433,133 |
| Germany | 186,667 | 435,126 |
| United States | 162,205 | 339,440 |
| British India | 23,082 | 313,072 |
| British North America | 51,452 | 219,934 |
| Other Countries | 238,328 | 331,405 |
| Total | 1,028,847 | 2,287,760 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 443,194 | 918,237 |
| Sweden and Norway | 898,970 | 1,887,888 |
| British North America | 255,814 | 624,236 |
| Other Countries | 214,233 | 635,571 |
| Total | 1,812,211 | 4,065,932 |
| Staves (all sizes) | 61,892 | 272,614 |
| Mahogany (tons) | 35,138 | 311,971 |
| Total of Hewn and Sawn | 2,841,058 | 6,353,692 |

## LAKE WINNIPEG TIMBER.

Mr. J. S. Mundy, a leading lumber manufacturer of Williamsport, Pa., and pine land and mill owner in Wisconsin, was a recent caller at the office of the *Lumberman*. In June, 1884, he was in Manitoba, and made an exploration of the Lake Winnipeg region, with the object of gaining some knowledge of its timber resources.

Mr. Mundy had a peculiar experience with the climate of Manitoba to start with. When he left Williamsport with the object of penetrating far down towards Hudson's Bay, he thought that since he was to dare the land of perpetual ice and snow, he would take along an ample outfit of winter underclothing. Accordingly his baggage bulged with such bodily comforts as thick flannels and woolen hosiery. At Winnipeg he was surprised to find, that instead of a rigorous air and frost every night, the locality was actually sweltering under a scorching sun that would do credit to Khartoum, with the difference in favor of Winnipeg that there the orb of day hung like a ball of fire over the landscape for 18 or 20 hours out of the 23, while at Khartoum the sun rises and sets with decent seasonableness. For four days while Mr. Mundy was at Winnipeg—and it was only June, remember—the mercury stood in the vicinity of 100 degrees, and there was scarcely a breath of wind to relieve the intense heat. Our traveller thought of the cool breezes of the South, and longed to get away from the torrid north.

He saw two men digging a trench under a sidewalk, probably for gas or water pipes. They had pick-axes, and were actually pecking up the frosty earth as if it were soft rock. He asked them how deep the frost was at that spot, and they replied that it was probably nine feet. "How can you ever raise a crop in this country, with the frost as deep as that ?" asked the tenderfoot. "O, that is easy enough," replied the Winnipegers. "You see, when the spring opens and the snow is gone, our summer comes in a hurry, and begins business just as you feel it to day. In four or five days after the snow is off, the harrows are put to work and seed is immediately sown. The grain comes up quickly under the warm sun, and the growth soon covers the ground. Afterwards there is but little rain, but plenty of sun, which continues to melt the frost underneath the grain roots. The moisture thus freed nourishes the plant and it grows apace. Thus a short season of favorable conditions matures the grain in fine condition"

Mr. Mundy chartered a tug, and ran north on Lake Winnipeg to Fisher river, 120 miles. As he was about to start on his voyage of discovery, from Selkirk, at the head of the lake, he found a missionary, who had paddled in, all the way from Fisher river, in a canoe. Mr. Mundy offered this missionary a passage back on the tug, with his feed to boot, which was accepted as a special providence, the canoe being towed behind the tug. He proved to be a man of keen intelligence, and possessed of wide and accurate knowledge about the region to be visited. For many years this missionary had lived, travelled and labored as a moral teacher among the Indians, covering hundreds of miles in his journeyings, which were mostly made in his trusty birchen craft. He had explored vast districts at the lower end of the lake, probably never before trod by foot of white man.

Mr. Mundy was grievously disappointed when he got out upon the great lake. Instead of a bracing beeze, dancing waves, and a cooling temperature, he was disgusted to find a continuance of the same dead calm that was experienced on the land, while the sun blazed on through the days that seemed to never end. To make the voyage more disagreeable, whenever the tug ran near the shore a swarm of black flies, each apparently as big as a hazlenut, sweep aboard the craft, evidently intent on making a meal of the crew at one fell swoop. When the black flies got tired vast herds of immense mosquitoes came abroad to clean up the fragments of the repast. All the way to Fisher river and back, 240 miles, there was th same dead calm, scorching sun, black flies and mosquitoes, and enless days.

But Mr. Mundy went to Fisher river, and in that neighborhood saw a large area of excellent spruce timber that is to become the future supply for the mills of Manitoba. The spruce is not large, but it is smooth and straight, and

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WM. STODDART, Contractor on C. P. R., writes from Dalton Station, Biscotosing P.O., April 20th, 1885:—"I am now through with the 16 h. p. Champion Saw Mill. The engine and machinery are in as good condition as when received. The mill has given entire satisfaction, and since getting into better timber has gone far beyond my expectations, sawing on an average 15,000 feet of bridge timber, 6 x 8, 6 x 12, 9 x 12, every 10 hours.

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sound as a nut, the knots being small, red, and tight as a cork in a bottle. He thinks that in the process of time this spruce will become a valuable resource in the lumber supply of Manitoba and the Northwest Territories. There is nothing to hinder the safe and easy rafting of logs from any point on the lake to Selkirk or Winnipeg, or any other point where mills may be erected, because of the remarkable absence of winds and rough seas, such as make rafting on the great lakes so hazardous.

So far as Mr. Mundy's observation extended, the shores of Lake Winnipeg are mostly low and marshy, and covered with a thick growth of tamarac and poplar. The region will be a paradise for the wood pulp men whenever the Canadian Northwest has 15,000,000 inhabitants, and wood pulp becomes an object of local demand. Little good spruce is to be seen on the east shore of the lake until the Fisher river region was reached, and there is little or no pine anywhere in that country.—*Northwestern Lumberman.*

### WATER-WHEEL STEPS.

In reply to "Subscriber," query 47, the question, what is the best material for steps, is one that cannot be perfectly answered on account of the large variety of wheels with steps so different in size, compared with the weight and revolutions of the various wheels. The material put into one wheel might prove or seem to be the best, while the same put in another would prove to be bad.

There are various kinds of wood used, such as maple, oak, hickory, lignum vitæ, and others, quite plentifully, but which is the best is yet to be found out. Unless these woods are all tried under the same wheel and with the water in the same condition, there will be no telling which is the best. If the inquirer has trouble in this line he will do well to state the size of the wheel, the fall of water and the number of revolutions of wheel per minute, as well as the diameter of steps; then I think that he will be on the way out of his trouble, that is, if he is troubled with his wheel steps; and the nature of his wheel or wheels must also be known. If all the foregoing data were given, almost any good millwright would be able to inform the inquirer about the size of the steps to use under the wheels.

If the right size of step is applied to the stress put on the step, any of the above varieties of timber mentioned will prove good. In my long experience in the line of wheel steps, the trouble was not so much in the kind of wood used as in the form of the step and its side compared with the stress upon it. Having used all kinds of wood for this purpose, I find the second growth of rock maple to be the best, although others might find it only second best. —*J. W. Truax in American Miller.*

### DEATH OF MR. JAMES BENEDICT.

Many of our readers will regret to learn of the death of Mr. James Benedict, of the firm of James Benedict & Son, which occurred last Saturday at his residence in Albany, N. Y., at the advanced age of eighty years and four months. This event reminds us that the pioneer lumbermen of the country are fast passing away. The firm of James Benedict & Son is well known to the lumber trade of Canada and the United States. It has done business in Canada with nearly all the lumbermen of the Bay of Quinte district and other sections of Ontario, including among other well known names in the trade, Mr. Sanford Baker, who for many years owned Baker's Island Mills, Mr. Stinson (deceased), Mr. F. Walbridge, Rev. Henry Usborne, who built and operated the mills now owened by Gillis Bros. at Braeside, Messrs. Thompson and Miller of Longford, the late J. C. Miller, of Parry Sound, H. McLachlan, of Arnprior, the late W. A. Scott of Peterborough, &c. The firm commenced doing business with H.B. Rathbun, Esq., in 1856 and the business relations then established have continued uninterrupted for 29 years. The closest commercial intercourse had endeared the deceased gentleman to many connected with the business founded by Mr. Rathbun, and from all of whom he had succeeded in winning the greatest respect and confidence.

Mr. Benedict, who was of English parentage, was born at Danbury, Conn., and had for the past thirty-one years resided in Albany. He commenced his lumbering operations in a mill which he himself erected on a small stream on his father's farm. He afterwards transferred his operations to Ulster Co., N. Y., where for some 13 years he handled the bulk of the lumber manufactured in that country. In 1854 he went to Albany where he established the house of J. Benedict & Son, which for 3 years has been so singnally prosperous. In 1856 he was also largely engaged in the tannery business in Sullivan Co., N. Y., erecting what at that time was considered the model tannery of the State. Mr. Benedict was the first lumberman to introduce the delivery of hemlock building timber to the retail lumber yards of New York city. Spruce and pine had before that been exclusively used. He supplied a large amount of timber used in the first construction of the Hudson River Railway and the old New York and Erie Railway. He also furnished the timber used in the construction of the dams on the Croton River which supplies the city of New York with water, and the timber used in the contruction of the old water reservoirs of the same city.

Mr. Bendict was an excellent business man, being endowed with great energy and sterling integrity. His business operations were large and conducted on the most conservative principles. For many years previous to his death his failing health compelled him to relinquish his active business pursuits and live a life of comparative retirement. He was a member of the Baptist church, but generous in his aid to to churches of all denominations and ever modest and unassuming in his good works as in all his business operations.

At a meeting of the Board of Lumber Dealers, of Albany held at the District Chapel, on August 17th, 1885, the following memorial was unanimously adopted:

Again are we called together to take proper action in reference to the death of one of our oldest and most prominent members, Mr James Bendict, the senior partner of J. Bendict & Son, a firm which has been recognized as the larges dealers in the district, and one of the charter members of our organization. His long business experience, his commercial capacity, his uncompromizing honesty, and his mature judgment, have made him prominent in our Board, and we would do well if all would emulate his virtues and be prepared, as he was, for the great change which, sooner or later, awaits us.

On motion, the board resolved to attend his funeral as an organization, and that this memorial be published in the daily papers, and that a copy be transmitted to the family of the deceased.

WM. N. FASSET, Secretary. HENRY PATTON, Vice President.

On the occasion of his funeral the lumberme of the city of Albany closed their offices out of respect to his memory. His remains were interred in a beautiful plot which he had purchased in the Rural Cemetery of Albany. He leaves a wife and one son, Ezra G. Benedict, who is also widely known in lumber manufacturing circles.—*Deseror to Tribune.*


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

### THE VICTORY OF THE S. A. WOODS MACHINE CO. AT THE NEW ORLEANS EXPOSITION.

It is generally acknowledged by persons connected with wood working business, who had the pleasure of visiting the New Orleans exposition, that what was called the wood working machinery annex contained the most varied and complete display of wood working machinery ever seen on the continent; and as the United States is far ahead of any other countries in the manufacture of this particular class of machinery it may be confidently stated that the exposition exhibit of wood working machines was the greatest the world has ever seen.

As almost all the prominent manufacturers of wood working machinery in the United States had their machines entered for competition, the keenest anxiety was felt as to its results, and no trouble or expense was spared by the competitors to make as good a display of their machinery as possible, not only from its advantage as an advertisement to the wood workers who visited the exposition from all parts of the country, but from the much more important aduantage which would result from the securing of an award over so many well-known competitors.

There was also, at the opening of the exposition, a struggle to secure the most desirable positions for a favorable display, and in this espect the concern which was most disadvantageously located was the S. A. Woods Machine Co. A public street, which the exposition management found it impossible to close, passed directly through the machinery annex and cut off a large amount of space which would otherwise have formed a part of the S. A. Woods Machine Co.'s exhibit. This was a very discouraging state of afiairs, but the company, although occupying such an unfortunate position for the display of their machines, made the best of their situation, and by cutting out a partition which seperated their exhibit from the main exposition building, and by a good arrangement of their machines, overcame to a certain extent the disadvantages of their position, which were so great that at one time the company seriously contemplated retiring their exhibit altogether from the exposition. Their confidence in the excellence of their machines convinced them, however, that with any sort of a fair showing before an intelligent committee of judges they were bound to win; and the sequel proved that this confidence was well founded, as before an examining committee composed of some of the most intelligent machinery experts to be found in this country, and after a thorough examination and comparison with other machines of like nature, they obtained the highest award which could be secured—namely, a gold medal for superior excellence for each different machine exhibited by them. Eight different machines were exhibited for competition by the S. A. Woods Machine Co., Boston, New York and Chicago, viz., Fast-Feed Flooring Machine, Moulding Machine, Double Endless Surfacer, Jointing Machine, Circular Saw Machine, Planing machine for matching two boards at a time, Panel Planer, and Shop Surfacer, and eight gold medals of the first-class for superior excellence were received by them over all competitors, thus placing their machines, on a fair verdict from a committee of evperts, at the head of the wood-working machinery manufacture of the world.

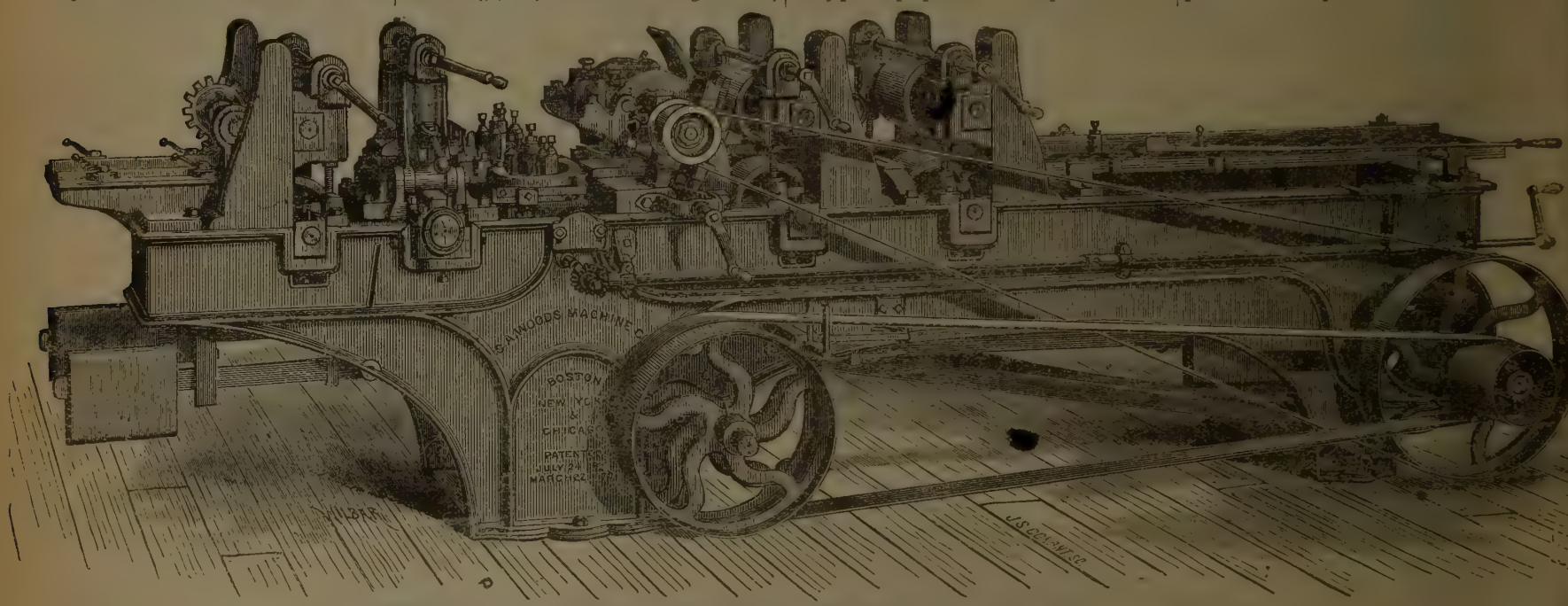
This award is well deserved, for there is no concern in the country which pays closer attention to the manufacture of its machines, or maintains a position nearer to the front in the matter of improvements. The verdict of the judges of award at the New Orleans exposition is one which had already been made by the most intelligent wood-working firms in the United States and other countries, as evidenced by the large orders for their machines which the S. A. Woods Machine Co. have received during the exposition and since its close.

One of the most important and widely used machines in the exhibit referred to above, is the new heavy pattern flooring machine, an illustration of which we present with this article. This machine has been designed by the S. A. Woods Machine Co. with special reference to high speed and fast feed, to meet the requirements of mills doing a large amount of business, and at the same time producing the very best work. It embodies many new features, and every part is proportioned with special reference to convenience and durability. One of the special features of this machine is the feed rolls, which are heavily weighted and provided with expansion gears, and are so mounted with expansion gears upon both ends of the shafts that an equal pressure is obtained upon both edges of the board, causing it always to "hug the guide" and feed through straight.

The method of suspending and weighting the feed rolls is entirely new, and the machine possesses many valuable and novel features which cannot fail to make it popular with practical wood workers.

### Leather Belt Cement.

An ordinary cement for this purpose is wheat flour boiled in oil of turpentine; but the ends must be secured by rivets, or it is not reliable. A better cement is made by soaking six ounces best glue in one pint of ale, then boil, add one and a half ounces of boiled linseed oil and stir well. Another prescription is to take dissolved glue in the form as the cabinetmakers use it, and add tannic acid till creamy and ropy. Make the leather surfaces to be united rough, apply the cement hot, let it cool and dry under pressure, and it will not need riveting. For rubber belting take pure rubber in thin slices, two ounces, dissolve in one pound of bisulphide of carbon. This is a good cement, but if kept thickens very soon. In order to prevent this add a solution of pure rupber, resin and turpentine.—*Exchange.*




*THE S. A. WOODS HEAVY PATTERN FLOORING MACHINE.*

### GRINDING WOOD.

Out among the Adirondacks the soft woods of that region are being ground into a fine pulp flour for mechanical purposes, which can not only be used in a manufacture of paper, card-board and oil-cloth, but can be thrown in with the feed of horses and other animals, that make a meal of almost any thing that is tasteless, provided it is sweetened up with a little nutritious matter. How far the fibre of the fine grains of spruce has found its way into the eatables of the human family remains only for the chemist to decide. For the purpose of soft wood flour, however, the trees are cut down and trimmed of their branches, and the bark removed by a gang of workmen who are familiar with the use of the draw knives, when the trees are ready to feed endwise through a hollow auger that is turning about as rapidly as a buzz saw. This hollow paring machine contains a number of knives that plane off in its circular path the fine shavings for the grinding machine similar to that of a lead pencil sharpener in bringing a conical point on a pencil. This operation reduces the fibres of the tree into lengths no longer than the thickness of a shaving, and soon reduces a log of wood into miles of ribbon that can easily be broken into flour by the millstones, as the grain of the wood runs nearly crosswise. This process differs in many respects from that employed in reducing wood to pulp to be filtered into paper. The cutting of the knives would be injurious to the minute fibres as some of them would be severed in the operation. In the mountainous districts noted for their water power, where wood can be ground on large revolving stones without the aid of steam in any form, and where the cost of power is not limited, the timber is cut up in lengths of about four feet and rafted down the streams to the mills, where it is taken into a side channel and raised out of the water by an endless chain that carries each length of wood into the storehouse, and piled up for use. They are then taken to a large circular saw and cut up into four pieces crosswise that leaves the bolts one foot in length. The bark is then planed off very rapidly on a revolving side cutter, the long knives on the face of a large wheel pares of the bark lengthwise of the bolt while it is being slowly turned about on a table by the workmen, when they are ready for the splitting machine. This machine is nothing more than a blunt wedge which is driven up and down by a crank motion. The bolts are placed beneath this stamping wedge that cracks them in halves in an instant, and the knots split out, if any are to be found, and the bolt reduced into pieces sufficient for the grinding machine. This is the machine that requires so much power to keep the mill in motion. The pieces of wood are laid crosswise of the stone and act as a break to keep the grinder from turning. The stone is kept well saturated with water, and its rough surface scrapes and grinds the fibres crosswise with the grain and mashes them into a pulp for the paper mill. The blocks of wood are placed in a rectangular box, so arranged that the grinding surface forms the bottom of it. The cover or follower is forced down by a feed screw, having a friction nut to guard against an over pressure on the stone. With five or six of these grinding pits arranged in the circumference of the revolving stone a large amount of power is absorbed in converting wood into pulp. The pulp being mixed with water in grinding is easily conducted in pipes down the stream to the next water privilege, where it meets with a chemical process, consisting of baths in superheated steam and alkali, under high pressure, in boilers that free the cellulose tissues of the pulp of all the impurities that find their way into the mass as well as into the lumber when the trees were grown. From this process, with the assistance of a few white rags, it is made available for the finest book and writing paper. In the paper industries of the world there is already to be found as much wood pulp in use as that from rag, and the uses of the former is very rapidly developing.—*Exchange.*

**Throw Away Trusses**

and employ the radical, new method, guaranteed to permanently cure the worst cases of rupture. Send two letter stamps for pamphlet and references. World's Dispensary Medical Association, Buffalo, N. Y.

### WOOD STAINS IN A DRY FORM

Andes (Erfindungen und Erfahrungen) gives the following formulæ for some wood stains, which may be put up in a dry form, and when wanted for use may be readily dissolved in water:—

Oak Wood.—Five kilos. of Cassel brown, 0.5 kilo. of potash, and 10 kilos. of rain water, boiled together for an hour, the whole strained through a linen cloth, and the clear, dark-colored liquid boiled to a syrupy consistency.

Walnut Wood.—A decoction of Cassel brown, 3 kilos.; potash, 0.3 kilo.; and water, 7 kilos.; the whole strained through linen, and during evaporation to syrup, 2.5 kilos. of extract of logwood added.

Mahogany.—A decoction of extract of Brazil wood, 3 kilos.; potash, 0.25 kilo.; and water, 3 kilos.; to which, before evaporating to syrup, 150 grs. of cosine are added.

Ebony.—Five kilos. of extract of logwood boiled with 11 kilos. of water, and when near the syrupy state, 300 grs. of iron nitrate added; evaporated to syrup under constant stirring.

All the above stains are brought into a dry condition by running the respective syrups into trays of sheet iron, with low rims, in which the syrup hardens, and is afterwards broken up and ground.—*Exchange.*

Subscribe for the Canada Lumberman.

### THE PIONEER IN WOOD PULP PAPER.

Paper made partly of wood pulp was first manufactured and sold in this country by the Smith Paper Company, of Lee, Mass. In 1885, Alberta Pagenstecher, who owned the patent of the Voelter grinder, and who had in vain endeavored to pursuade paper manufacturers to use it, came to Stockbridge, adjoining Lee, on a visit, and finding a small available water power, he made a contract with this paper company to take his pulp at eight cents a pound. The pulp was used and the paper marketed at twelve cents a pound, the usual price at that time for printing paper. After some time the water turned out to be too small and Mr. Pagenstecher sold his pulp mill; soon after he sold to Congressman William A. Russell, of Lawrence, Mass., the right to use and sell the grinder in New England, and to Senator Warner Miller, of Herkimer, N. Y., the right for New York State. The commercial success of wood pulp is due to the efforts of these gentlemen, after the Smith Paper Company had demonstrated that paper made partly of this pulp was undistinguishable from cotton paper and was just as saleable, if the purchaser at that early day was not told what his paper was made of. The Smith Paper Company has the credit of being the very pioneer in the manufacture of this paper, which has fallen in 20 years from 12 cents to five and six cents a pound, principally because the wood pulp has fallen to one and a half to two cents. It may be noted, also, that the Hon. Elizur Smith, the senior member and the founder of this company in 1865, when in company with Geo. W. Palmer in 1854, made all-wood pulp from basswood. They experimented at the instance of a Frenchman named Melier, who came to Lee to persuade them to do so, and the paper that they made is believed to have been the first all-wood paper ever made in the United States. Samples of it are now preserved in the office of the Smith Paper Company, not well bleached and showing brown fibres, but otherwise much like the all-wood paper recently made and to be made at Glens Falls, N. Y.—*Paper World.*

### PROSPECTS OF RAILROAD CONSTRUCTION.

The *Railway Review* remarks as follows:—"The talk of a revival in railway construction has not as much foundation in fact, as rail makers and railroad builders earnestly desire. Still the limit of extreme depression has almost been reached. An enormous volume of capital is only awaiting the word 'go.' No doubt it will be spoken, in time, but when, no one knows. So far the construction of this year is under 900 miles. But meanwhile railroad building on paper is being pushed with but little sign of flagging enterprise. Within a few days the announcements of new roads represent a mileage of 1,800 miles. The confidence of capital is still wanted, but when this is secured railroad construction will return to something like former activity, despite the warnings of the thoughtful ones who are telling the people that we are far ahead of requirements and must wait. Railroad building is a favorite pastime with a great many Americans, and they will not be deprived of their pleasures. They have become accustomed to ups and downs, bankruptcies and receiverships, and to long seasons of no dividends, and are willing to take all these risks again. This element is indisposed to accept the restraint of conservative counsels, and may be counted on to improve to the utmost any suspicious hanges in financial circles."

### MILL BUILDING IN THE SOUTH.

While, within the past year, but few mills have gone np in the Northwest, mill building in the South generally has been active. Several large corporations have started into existence. Timber lands have been bought very cheap, which, no doubt, is the main excuse of more progress in this direction in the south than in the Northwest. Yellow pine lumber, except for local use, has been rather slow of sale; but that has not seemed to put a damper on mil building. We are inclined to consider unfavorably the erection of so many mills. The demand for yellow pine has been on the increase since its introduction in to the northern markets; but the point has been by no means reached where the product of the mills is readily taken. It is not wise in any line of manufacture to increase the supply much beyond what the demand will warrant. The minute is so increased there are sure to be depressed prices. That is the trouble with the white pine manufacturers at present. Ready sales and profitable prices, a few years ago, stimulated the building of mills, and every man who could control a tract of pine thought the erection of a mill the proper thing to do. But, as is now seen, it was overdone. The future demand for lumber, promising as it was, was discontinued. Some of the owners of white pine mills would not now object to there going to ashes, provided they were insured. There is altogether too much lumber on stick. It costs a good deal of money to carry it, and the influence it exerts is bad. Comparatively clean docks and yards act as a tonic on both the retail dealer and consumer. The Southern manufacturers, it seems to us would act wisely if they studied these condition. The call for yellow pine lumber will become louder—it cannot help it—but it should be remembered that the territory in the south capable of producing lumber is a big one. There is no particular glory in running a saw mill; it should be run for the money there is in it, if at all, and an unlimited number of mills are not productive of satisfactory profits.—*Record of Lumber Mills and Lumber Dealers.*

### DEFENDING ALASKA.

The newly appointed governor of Alaska, Mr. A. P. Swineford, of the Marquette, Mich., *Mining Journal*, is noted as a joker and for getting back to the home stake every time in a repartee. Secretary Hotchkiss of the Lumberman's Exchange having to write Swineford recently on business matters, took occasion to commiserate him on his forthcoming residence among the icebergs and grizzilies of Alaska, advised him to get his life well insured for the benefit of mankind in general, and hoped a kind providence would protect him from the Indians, and especially the Russian bear, and permit his going on pleasure "exertions" to Siberia or the North pole, etc., etc. Swineford's reply is characteristic: "Thanks for your sympathy. I go where I will have cool breezes and a temperature of not more than 75 degrees in summer, and an average of 38 degrees above zero in the winter! Go buy you a geography or cyclopedia and then let me hear from you again! If after you see a piece of red or yellow Alaska cedar, cut from trees ranging in diameter from three to nine feet, you want to keep on handling scrub pine from Wisconsin and Michigan, just keep at it and you will have the sympathy of, yours truly, A. P. S."—*Northwestern Lumberman.*

### LEITH.

The *Timber Trades Journal* of August 1st says:—There has been a fair average importation of wood goods from the Baltic this week, also a cargo of oak from Bayonne, and whilst writing another of the Quebec vessels is exciting general remark, and some of them, if much longer in arriving, will be unable to make this season their customary two voyages.

As regards the trade this week has been almost a blank, owing to the holidays, but it is hoped that now they are passed business will resume its usual course.

The public sale this week has been postponed until Thursday, to allow of the holidays being fairly over, so that a report of same will not appear until next week.

### STATELY ROOM.

This magnificent apartment is probably unrivalled in the beauty of its oaken panels and carving. The noble and massive effect is increased by its exceeding loftiness. It fills two storeys of the north front and is lighted by two tiers of three windows each, and by two oriels at the upper end of the north side. The room is fifty feet long by thirty feet wide. An oaken wainscot, which runs around two sides, rises as high as the top of the chimneypiece. The wainscot is plainly panelled, and is without ornament of any kind. This simple yet bold and free treatment of the wood is incomparably effective. Warm, rich, and massive, the dusky oak most exquisitively reflects the ever varying shades of light. On the southern side of the room the wall space between the wainscot and the ceiling is filled up by some clear and delicate Gobelins, with deep effective borders. But it is to its carved oak screen and its two galleries that the Marble Hall owes most of its fame. The screen is at the western end, and partitions the room from the lobby outside. It is divided by richly carved pilasters into compartments filled slightly enriched panel surmounted by an open work fan ornament. The large folding doors, with the bold and sweeping arch, are identically treated. Above the screen, and projecting slightly from it, runs the Visitors' Gallery. The front presents a wealth of carving, modelled on the same lines as the screen, but richer and more fantastic. The plain shields of the two compartments beneath the apertnres, for visitors to watch the diners below, are foils to the delicate arabesques and the fanciful tracery of the divisions which flank them. An enlargement of the fan ornament of the screen, surmounted by a bold and massive cornice, completes this delightful piece of woodwork. At the opposite or eastern end of the hall is a Minstrels' Gallery, which, having twelve open compartments, hardly presents so good an opportunity for the art of the decorator. Nevertheless it is richly pannelled, and the panels are filled with delicate arabesques. Here are introduced the heraldic lions of the Cecils, bearing cartouche-shaped shields containing the emblazoned arms of the marquessate.—*Magazine of Art.*

### A Terrible Accident.

STRATFORD, Aug. 18.—A young man named George Moses, of the township of Downie, was hitching the horses to a wagon, when his father came out of the barn with a barrel on his head, at which the horses took fright. As they started to run the pole of the wagon caught the son's nose, tearing it off and half of his face. There are little hopes of his recovery.


**Life in The Paris Sewers**

is possible, for a short time, to the robust, but the majority of refined persons would prefer immediate death to existence in their reeking atmosphere. How much more revolting to be in one's self a living sewer. But this is actually the case with those in whom the inactivity of the liver drives the refuse matter of the body to escape through the lungs, breath, the pores, kidneys and bladder. It is astonishing that life remains in such a dwelling. Dr. Pierce's "Golden Medical Discovery," restores normal purity to the system and renews the whole being.

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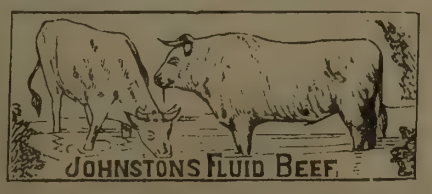


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., SEPT. 1, 1885.*


THE tamarac forests in several counties of New Brunswick are suffering from the ravages of caterpillars.

DRAKE, Burrows & Rutherford, saw millers and lumber dealers, at Selkirk, have dissolved partnership.

THE lumber trade of Selkirk, Manitoba, is reported good. Long trains are taken away from that point daily.

THREE barges were recently at Grand Marais, upper Michigan peninsula, loading board pine for Quebec, shipped by Tim Nester.

THE large mill of Cross & Dyer, of Standish, cut 133,000 feet of lumber and timber with one exception this is the best record in Michigan.

THE largest dry dock in the world is said to be at St. John, Newfoundland. It is 600 feet long at the top, 558 feet long on the keel line and 132 feet wide.

THE Chicago Lumbering Company, at Manistique, Mich., is running its mills night and day, and will turn out this year 65,000,000 feet of lumber. No curtailment there.

CAPT. B. WAIT, of Grand Rapids, reports to the Muskegon *News* that he has sold 1,940 acres of pine land in Delta and Schoolcraft counties to the Delta Lumber Company at $10 per acre.

LARGE numbers of men are already leaving for the woods, several lumber firms having sent men up during the last few days. Booth & Gordon will send a large gang to their Kippewa limits on Monday next.

THE firm of Houseman, Wager & Townsend, of Grand Rapids, have sold to Simon J. Murphy, of Detroit, a tract of 3,000,000 acres of pine and hardwood timber land located in Wisconsin, on the south shore of Lake Superior. The consideration was $65,000 spot cash.

UP to a recent date St. John, N. B., had shipped 35,000,000 feet of deals to European ports this season, Parrsboro had shipped 20,000,000 feet, 40 large vessels and as many small ones having taken cargoes from that port.

THE Otawa *Free Press* of Aug. 22nd says:—The manufacture of square timber is going to be more extensive this coming season than it has been for a number of years, owing to the advanced price recently realized for that description of lumber.

ON Thursday forenoon David Jewell, aged 17 years, third son of Mr. David Jewell of Midland, had his left thigh bone broken by a piece of slab thrown from the bolting saw in the red mill where he is employed. Dr. A. Wilson was sent for, and with the assistance of his brother, who arrived a minute or two later, set and bandaged the limb, and the patient is doing well.

QU.—Have lumbermen owning timber limits in township a legal right to cut grass on beaver meadows situate on unlocated lots, and to exclude settlers from cutting grass on the same meadows? Have they the legal right to give settlers notice not to cut grass thereon? Ans.—If the facts are that the lumbermen are in possession of the beaver meadows, which are parts of unlocated lots for which the patents have not been issued, and are cutting the grass thereon, whether so far as the Crown is concerned such possession and cutting of grass is wrongful or not, we think that probably the lumbermen may prevent any interference by the settlers. If the lumbermen are not in possession we do not think they are entitled to prevent the settlers from also cutting grass on such unlocated lots. Probably both the lumbermen and the settlers may be considered trespassers so far as the Crown is concerned, but the lumbermen have have no better right than the settlers, unless acquired by possession. —*Mail.*

## A LARGE CARGO.

*To the Editor of the Canada Lumberman.*

SIR,—Probably the largest cargo of sawed lumber that has ever been shipped from Canada left this port to-day, per steamship Regius, Capt. Kayll, on account of Bryant, Powis & Bryant, of London, England. It consisted of 1,272 St. Petersburg standard three inch deals, or 2,518,560 feet board measure, equal to ten large barge loads of 250,000 feet each. If it were in one inch boards it would cover a farm of sixty acres, and require the pine product of say 1,000 acres of ordinary forest land, such as we have to depend on for our future supply. This shipment may suggest to the minds of many the great importance of the future of our leading industry. There is no questioning the fact that our country is fast being depleted of one of its most important elements of prosperity, and that it behooves not only the lumbermen and the Government, who are directly interested, but almost every member of the community to do what they can by expression of opinion or otherwise to protect that that cannot be reproduced in our day.

Yours, &c.,

Montreal, Aug. 10th. J. K. WARD.

## FORESTRY.

SIR,—Opinions differ. and it is well they should; it is conflicting waves of disagreement which prevent stagnation in the ocean of thought. But in my opinion, of all done in the way of legislation last session in all the many parliaments and governments of our country, the most beneficial was two measures—and they not very imposing or sweeping ones—in the forestry line, inaugurated by our Local Government here. The first was the facilities given for increase in number of the persons employed in watching and surpressing fires in the lumber districts, a most valuable movement, and one certain to save millions of dollars. The next is the appointment of an Arbor Day, under which arrangement a large number of trees were planted this spring, and it is likely many thousands will be every spring succeeding. What I should like to draw the attention of all planters to is the fact that a great number of trees, well enough planted, die yearly in Ontario from want of after care, or if they live grow so slowly as to disappoint the expectations of their planters and render the time spent in planting them and the years spent in expecting them to grow alike a loss. I have seen a plantation of maples (this was last year, in Oxford county) which had been planted fifty years since carelessly, and as carelessly attended to since. They grew—they are twenty-feet or so in height; but they are only four inches through when they should be twenty or twenty-four. They might yield an eighth of a cord of wood. I know maples of that age that will give three cords.

At this time of summer is the trying term of spring planted trees, and if well helped now they get a start for life. They should be mulched with straw, loose manure, hardwood sawdust, or some such material two or three—the last is better—in radius round the stem. Avoid fine chips or sawdust, they are hurtful. Another way is to keep the ground always lightly stirred

I would also remind your readers that at this time (the first part of August) they can plant, the period of summer growth being over, young evergreen trees. It will be found greatly to the advantage of agriculture to plant lines of these as windbreaks all along the north and west of farms. They should be taken from the bush when small, and planted at once—if the roots dry they will probably die, I lately wrote to the township clerks—a very intelligent body of men—in Ontario, asking what was the result of such windbreaks in their localities, and obtained several hundred replies that the effect was invariably good, and that in many cases the crop had been doubled where so sheltered.

Without desiring that in this country the tenant system of European lands may be introduced, I think we now begin to see that it has certain advantages. The owner of an estate, which he desires shall descend to his children, does not, in many counties, permit its woods to be destroyed or its most beautiful and valuable trees to be cut down that an additional wheat field or two may be obtained. He rather plants he hopes to leave it better than he found it. The yeomanry system, the system of many small farms, each tilled by its freeholder, has politically been through the best. Can we not combine the two? Can we not think of our farms as the Briton of his estate, and leave each its proper proportion of forest. As nothing is more ugly than a parallelogram of soil with a house in the corner, so nothing more beautiful than a form possessing its own richly waving woods, and rejoicing in its three sheltered fields. The last is fit to be a residence for anybody; the first—well the first is not.

Toronto Aug. 8. R. W. PHIPPS

## ECONOMICAL STEAM ENGINES.

In selling steam engine attachments and improvements, the man who can demonstrate that his attachment is going to effect a large saving is the party who gets most customers. Unless there is some prospects of a device effecting a saving of from 10 to 50 per cent., few engine owners or steam users will listen to him. There are sometimes curious ways of proving that a saving has been effected. A well known engineering expert once had occasion to examine the engine of a steamer on one of the inland lakes. He found it in a bad shape, and wished to have some repairs done. The owner would not listen to the suggestions till he heard there was a probability of saving 20 per cent. of coal at a small outlay. The cylinder was badly out of round, and the practice was followed of jamming the piston packing in very tight to prevent leakage as far as possible. Owing to this the engine would not move till the boiler had a pressure of 20 pounds of steam. The expert had the cylinder bored out, and put in good steam packing. When that was done and the engine lined up, he had steam raised. So soon as there was ten pounds of steam shown on the gauge, he called out to cast off and get the boat out. The owner protested that there was no use trying to start out till they had more steam, but the expert insisted that there was steam enough, and the engine was started, and the boat moved out in good shape. The owner was so astonished at the immediate improvement that he paid for the work without any more trial.

The same expert wanted to put a balanced valve and some other improvements on a river steamer. The owner did not care to incur the expense, but was brought around by a promise that the engine would make ten more turns. The old valve was leaking badly and was not properly set, besides the engine needed lining up. The expert gave the engine a small overhauling at the time the balanced valve was put in, and had no difficulty in getting the additional ten turns. We believe that in a great many instances it will be found that the inventor expects to get part of his saving through his skill in selections not entirely connected with the device he sells.—*Dominion Mechanical and Milling News.*

## WOOD-WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the U. S. Patent Office, August 11th, 1885, is specially reported by Franklin H. Hough, solicitor of American and foreign patents, 925 F. Street, N. W., Washington, D. C.:

323,900.—Lathe, dog—C. S. Beach, Cloversville, N. Y.

324,026.—Planing machine—J. F. Welsh, A. B. Hutchinson & W. H. Gray, Brooklyn, N. Y.

324,028.—Saw gummer—H. H. Ihsen, Allegheny City, Pa.

324,223.—Saw mill feed, mechanism for—A. W. Campbell, East Saginaw, Mich.

324,059.—Saw mill carriages feed, mechanism for—H. R. Wolfe, Louisville, Ky.

324,273.—Saw mill, reciprocating—A. Rodgers, Muskegon, Mich.

323,996.—Saw swage—H. R. Wolfe, Louisville, Ky.

325,912.—Saws, adjusting—R. W. Clarke, Auburn, N. Y.

ISSUED AUG. 18.

324,409.—Lathe—L. M. Nutting, Concord, N. H.

324,416.—Lathe—C. T. Reiss, Hamilton, Ohio.

324,380.—Saw—M. Brown, Bridgeport, Conn.

324,381.—Saw gummer—J. R. B. Hunt, North Troy, Vt.

324,576.—Saw mill set works—C. W. Metcalfe, Hopkinsville, Ky.

324,434.—Saw sharpening machine—J. H. Totman, Deseronto, Ontario, Canada.

224,701—Saw swage—W. C. B. Hummel, Winfield, W. Va.

## RAFTS ARRIVED.

The Quebec *Chronicle* gives the following list of rafts arrived:—

Aug. 13.—Henry E. Hall, deals and plank, Hall's booms.

RAFTS ENTERED AT THE SUPERVISOR OF CULLERS' OFFICE.

Aug. 20.—Collins' Bay R. & T. Company, pine, sundry coves.

Timothy Nester, pine, Spencer cove.

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c, measured and culled to date:—

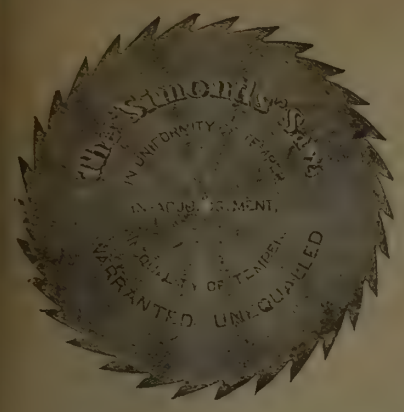
| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine.. | 1,992,952 | 1,471.010 | 1,423,742 |
| White Pine..... | 2,813,964 | 1,887,056 | 1,368,294 |
| Red Pine..... | 306,309 | 249,593 | 57,193 |
| Oak ..... | 1,354,544 | 546,792 | 1,169,242 |
| Elm ..... | 248,761 | 637,893 | 856,756 |
| Ash ..... | 196,386 | 375,316 | 226,423 |
| Basswood ..... | 2,145 | 4,415 | 47 |
| Butternut..... | 989 | 1,121 | 3,083 |
| Tamarac ..... | 4,916 | 18,633 | 2,163 |
| Birch & Maple..... | 137,249 | 185,111 | 386,268 |
| Masts & Bowsprits... | —pcs | —pcs | —pcs |
| Spars ..... | — pcs | 41 pcs | 17 pcs |
| Std. Staves..... | 461.1.0.25 | 38.1.2.25 | 45.8.2.10 |
| W. I. Staves..... | 446.4.3.6 | 78.0.0.2 | 81.8.0.20 |
| Brl. Staves..... | 87.1.1.27 | 0.6.2.13 | 195.9.3.25 |

JAMES PATTON,

Quebec, Aug. 21. Supervisor of Cullers.

**Composed of Smart-weed, Jamaica Ginger, Camphor Water, and Best French Brandy, Dr. Pierce's Extract of Smartweed, is the best remedy for diarrhœa, cholera morbus dysentery or bloody-flux; colic or cramps, and to break up colds,**

# ST. CATHARINES SAW WORKS!



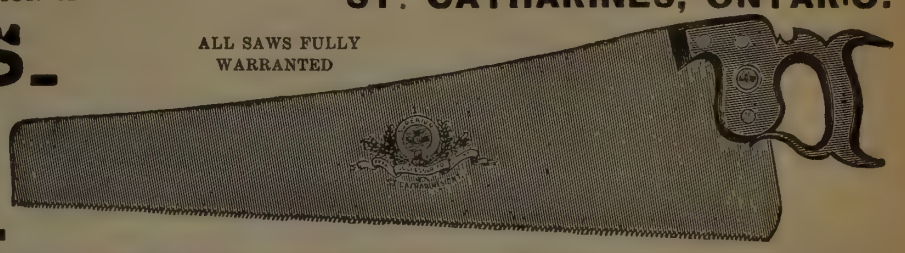

## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

**SAWS.**

ST. CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

**"SIMONDS" SAWS.**

☞ *All Our SAWS are now made under the "SIMONDS" PATENT P R OCESS.*


### DRIVEN ON THE ROCKS.

San Francisco, Cal., Aug., 25.—Particulars have just been received of the wreck on Thursday of the British ship Huntingtonshire and the loss of eigeteen lives off Point Reyes, about forty miles north of Golden Gate. The scene of the disaster is a rocky promontory jutting into the Pacific from the western coast of Marin county. The ship sailed from Portland, Ore., some time ago for Liverpool, with a crew of twenty men and a cargo of 8,000 cases of Columbia river salmon and other merchandise. Soon after leaving port the captain accidently dropped the sextant overboard and consequently was unable to determine the position of the vessel. After losing the reckoning the ship drifted as far south as the equator, when striking a favorable breeze, she began to trace her way back to more northern latitude. While in the tropics four of the crew became incapacitated for work by reason of contracting fever. On arriving off the California coast for the second time the captain attempted to make the port of San Francisco, but the winds and currents were against him, and Thursday morning the ship was driven on the rocks at Point Reyes, where there is a lighthouse, and which was probably mistaken for the beacon at Point Bonita, which marks the entrance to this harbor. The ship and cargo are reported to be a total loss, and only two men are believed to to have survived to tell the tale of the terrible voyage and final disaster. The Huntingtonshire was a new vessel, built at Glascow, in 1884, her tonnage being 1,175. She was owned by F. Law & Co., of Glascow, whence she was despatched to Portland, Ore., where she took on board, on owners' account, a full cargo, consisting of 12,514 barrels of flour, valued at $50,000, and 8,000 cases of salmon. The vessel herself was valued at $60,000.

### NOT TO BE FOOLED AGAIN.

A shephered once to prove the quickness of his dog, who was laying before the fire in the house where he was talking, said to me in the middle of a sentence concerning something else: "I am thinking, sir, the cow is in the potatoes." Though he purposely laid no stress on these words, and said them in a quiet, unconcerned tone of voice, the dog, who appeared to be sleeping, immediately jumped up and, leaping through an open window, scrambled up the turf roof of the house from which he could see the potato field. He then (not seeing the cow there) ran and looked into the farm yard, where she was, and finding that all was right, came back to the house. After a short time the shepherd said the same words again, and the dog repeated the outlook, but, on the false alarm being a third time given, the dog got up, and, wagging his tail, looked his master square in the face, with so comical an expression of interrogation that he could not help laughing at him. On which, with a slight growl, he laid himself down in his warm corner, with an offended air, as if determined not to be made a fool of again.

A PRIVATE despatch received at Detroit last week states that the Canadian schooner Oriental, timber laden for Kingston, was waterlogged in Georgian Bay. One of the Moffat Line tugs was sent from Port Huron to her assistance. The Oriental was built at Garden Island in 1866, and is owned by the D. D. Calvin estate, Kingston.

THE Dominion Government have appointed Colonels Jackson, Whitehead, and Forrest, of Winnipeg, as commisioners to enquire into and report upon unsettled claims on the Militia Department on account of the recent rebellion in the North west.


## VALUABLE
## SAW MILL PROPERTY
—AND—
## TIMBER LIMITS,
NEAR MONTREAL.
## To be Sold at Sheriff's Sale.

There will be sold on the 21st SEPTEMBER next, at the Court House, in Montreal, a large Steam Saw Mill Property, situated on the St. Lawrence River at the entrance of the Ottawa, within fifteen miles of Montreal; about three hundred acres of farming land (free hold), and about three hundred square miles of timber limits well watered for driving purposes.

There is every facility for doing a large lumber business here, and is well worth the attention of lumber dealers.

Further particulars can be had by reference to the Quebec *Official Gazette* of the 15th August, or to the

LIQUIDATORS OF THE EXCHANGE BANK, Montreal. 2i.17

## Auction Sale of Timber Berths.

DEPARTMENT OF CROWN LANDS.

(WOODS AND FORESTS BRANCH.)

Toronto 10th August, 1885.

NOTICE is hereby given that certain territory on the North Shore of Lake Huron will be offered for sale by Public Auction, as timber berths, at the Department of Crown Lands, Toronto, on Thursday the Twenty-second Day of October next, at one o'clock p. m.

T. B. PARDEE,
*Commissioner.*

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and condition of sale, will be furnished on application personally, or by letter to the Department of Crown Lands, where also maps of the territory can be obtained.

*No unauthorized Advertisement of the above will be paid for.* 4i.17

## Axes & Cross-Cut Saws.

CANADIAN AXES.
Both inlaid and overlaid steels, 10 patterns, from $7.00 upwards per dozen.

AMERICAN AXES.
Both inlaid and overlaid steels, eight patterns, from $10.00 upwards per dozen.

SILVER STEEL LANCE-TOOTH CROSS-CUT SAWS.
Warranted to be good temper or will be replaced. Special three square and extra fine cut flat files for these saws.

BLOCKING AND BROAD AXES
Of extra shape and quality. Samples of axes and saws sent to any address on approval and for selection.

## Geo. Stethem
Importer of Heavy and Shelf Hardware. Sole Agent for the B-4-Any Axe. 6i.17

A FULL LINE of all Size Single and Double Belting constantly in stock.

☞ All ORDERS Filled same days as received.

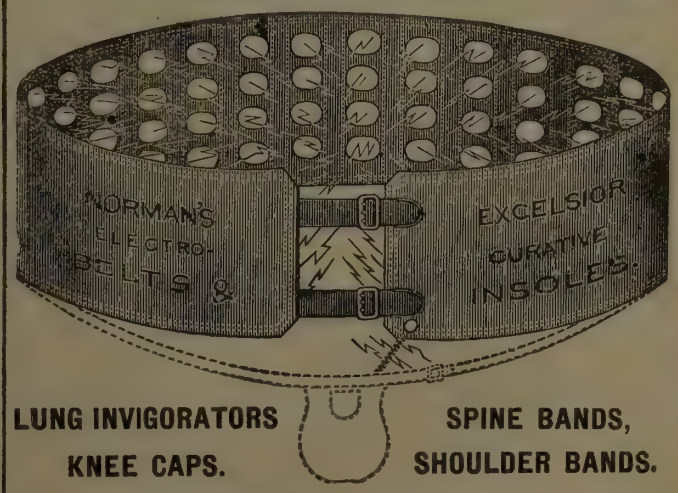
TORONTO
WAREROOMS
## 86 King Street East

*Factory and Warerooms:—2518, 2520 and 2522, Notre Dame Street.*

## MONTREAL, QUE.

# Norman's Electro-Curative Belt!

***4 QUEEN ST., EAST, TORONTO.***




LUNG INVIGORATORS
KNEE CAPS.
SPINE BANDS,
SHOULDER BANDS.

This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

## *A. NORMAN, Medical Electrician*

4 QUEN STREET EAST, TORONTO.

***N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination***

## PREVENTION OF DRY ROT IN TIMBER.

We recently published an article showing the caurse of dry rot in timber, and amongst other preservation we referred to a paper by Mr. Boulton on its antiseptic treatment. As the subject is an important one to wood workers, we now gives the following: "The can be but two opinions as to the growing importance of studying the question of timber preservation, having regard more particularly to the reckless manner in which our own forests have disappeared and the little care that is bestowed on those of our colonies and the United States forests, as yet of vast area, but, nevertheless, thinning so rapidly as to be palpable to the most casual observer. It is true that the substitution of iron and steel for wood in the navies of the world has largely diminished the call for timber in that direction, but this diminution is made up for by the enormous extension of the railway system and the demand for sleepers and telegraph poles, as also for the piles necessary for the great harbor and reclamation works that are so numerous at the present day." Any information concerning the practical preservation of wood is therefore of extreme value, and Mr. Boulton's phamphlet (the result of a paper read last autumn before the Institution of Civil Engineers) is one which deserves careful study.

The appearance on a large scale of the dry rot in the ships of the British navy, at a time when they really were the wooden walls of old England, was naturally a subject of considerable alarm, when we know that a single seventy-gun ship required for its construction the oaks of 40 acres of forests, and therefore it was not to be wondered at that as early as the beginning of this century various proposals were made to stem the evil by the use of various salts of metals. The inquiry assumed more definite proportions, however, when the railway era was fairly inaugurated, and it was found that stone sleepers were too rigid to be useful, and several materials were experimented upon for timber preservation with more or less success. The first system of treatment was called Kyanizing, after its inventor, Mr. Kyan, and consisted of the use of corrosive sublimate. It answers the purpose very fairly, especially when the timber was in a dry situation, though it failed when tried under water. Moreover, corrosive sublime was found to be rather too volatile at ordinary temperatures, and too injurious to those who had to handle it. Marganizing, the system adopted by Mr. Margary, was the employment of the sulphate of copper, which appears to be the most reliable of all the metallic salts, and is still in use in France. Burnetizing (after Sir William Burnett) was the adoption of chloride of zinc, a good timber antiseptic, but very soluble in water. It is still in favor in Germany and Holland. Finally came Mr. Bethell's celebrated patent for creosoting, a bad name for the existing process by coal tar, as in reality creosote is a product of the destructive distillation of wood, which has never been used for timber preservation; and the only excuse for the name was because somebody discovered carbolic acid or phenol in both coal tar and wood distillation, so that it must be understood that creosote, in popular application to wood-preserving, is not creosote, but oil of tar.

The basis of the action of all these remedies was supposed to be that they coagulated the albumen of the sap, and formed insoluble compounds that arrested decay; but as it has been proved by experience that the salts of metals are not so efficacious or so permanent as the tar-oils, the so-called creosoting process has now for a considerable period out-lived its competitors. Even in France, where the sulphate of copper has held its own longer than anywhere else, partly because Dr. Boucherie injected the sulphate in a peculiarly ingenious manner, and partly because it was noted that the salts of metals became washed out in damp situations, even there the creosoting process has met with great approbation, since Forestire observed how thoroughly the timber was protected against the most troublesome pest, the teredo navalis. The oil used in creosoting is thus prepared: When coal is carbonized for gas making, the products given off are four, viz.: illuminating gas, ammoniacal or gas-liquor, coal tar and coke, all of them, in their several ways, of extraordinary commercial value, though, in the present case, the coal tar, a black, treacly looking substance, is all that we have to deal with. It may be mentioned, however, incidentally, that the waste or gas liquor is the parent whence the ammonia group is manufactured on a large scale. By distilling the coal tar, three separate groups of products are obtained: first, the oils which are lighter than water, such as napthas, which are of incalculable importance to the country, as from them are ultimately procured the aniline dyes; secondly, the oils which are heavier than water; and, thirdly, the pitch which is the residum of the distillation. The lighter oils form a category of themselves, quite distinct from the heavier ones, and have never been used for creosoting purposes; but they are extremely rich in their own particular constituents, yielding, amongst other results, the benzoles from which the aniline is obtained, the toluols, the solvent and burning napthas, and carbolic acid, whence is derived the picric acid used for fulminating purposes. The heavy or dead oils form the creosote of the timber-yard, and they were formerly treated *en masse*, though now each constituent can be separately removed according to its volubility. These dead oils are divided by the trade into two kinds, "London" and "country," the former being the bestillation from the best Newcastle coals, which are usually supplied to the south of England, and are much richer than other coals in semi solid substances, such anthracite, naphthalene, etc. The country oils, on the other hand, are distilled from the Midland coals, and are more volatile, besides containing a larger proportion of tar acids. In the earlier days of Bethell's patent, the heavy or dead oils were alone used, it being considered that the crude napthas were useless as antiseptics, and that the pitch from its solidity, would form an impediment to the injection; but the fashion gradually came into use of mixing a small percentage of country with London oils, as dilutents of the more solid material, and, in point of fact, the country oils became popular and mentioned in specifications.

The inspectors liked them because they were thinner and injected with less trouble, and also because the timber thus treated looked cleaner and less muddy. The late Dr. Letheby, too, gave a great impetus to the growing use of country oils, as he considered that the carbolic acid (which had been discovered in coal tar by Runge, in 1834) was the key of the whole position, and that the efficacy of the treatment consisted in the percentage of carbolic acid. It was his object, therefore, to exclude the naphthalene and para-naphthalene as of no value, but to exclude the lighter portions of the oils, viz., those which distilled between 360 deg. and 490 deg. F., as containing the tar acids in the greatest abundance. Here, again, incidentally, we may mention that this para-naphthalene, useless in timber preserving, has been found to ultimately yield anthracene, the parent of alizarine, that beautiful red dye that has so completely superseded madder in textile operations.

Dr. Letheby, however, did not have all his own way, for the investigations of De Gemini and Rottier, in France, and of M. Coisne, in Belgium, seemed to entirely disprove his conclusions. The latter gentleman, an engineer in the service of the Belgian Government, placed shavings in putrefying pit for four years, saturated with creosote containing respectively 15 per cent., 8 per cent. and 7 per cent. of tar acid, while one sample was of heavy specific gravity and held no tar acid whatever. This last experiment, however, was the most successful of all, and throughout the whole series it was evident that the results were in favor of the heavy oils, and that the tar acids were of no use at all. The Belgian government accepted Mr. Coisne's statement, and does not stipulate in its railway specifications for any tar acids, though it allows 30 per cent. of naphthalene, one of the very substances discarded by Dr. Letheby. Following an inverse method of examination, M. Coisne procured and analized some creosoted sleepers that had resisted decay for 20 years, and found no tar acids, but, on the contrary, plenty of naphthalene. Similar experiments were undertaken by Mr. Boulton, in 1882, on sleepers from various railroads which had been in use from 16 to 32 years, and his analysis, says the *Builder*, proved four things: 1. That no tar acids were detected by ordinary methods. 2. In the majority of cases the semi-solid constituents, such as naphthalene, were present. 3. Only small percentages remained of oils distilling below 450 deg. F.; all these facts proving that it was through the action of the heaviest and most solid portions of the oils that the preservation was effected. 4. He detected an alkaloid called acridine, which he thought played an important part in the action, it being undoubtedly a powerful germicide and solidifying within the pores of the timber, without evaporating or being washed out. Greville Williams also came to the conclusion that the antiseptic results of creosote were due more to the basis of alkaloids than to the tar acids, the former remaining while the latter seem to disappear. It is therefore most probable that it is this unfortunate quality of evaporation that disqualifies the tar acids, seeing that, taken per se, there is no doubt but the acids are powerful antiseptics, and that their presence arrests decay. Mr. Boulton's experiment shows that if tar acids and naphthalene be separately exposed at the same temperatures, the former will evaporate much more quickly than the latter; indeed, by repeated washings with cold water, both carbolic acid and cresylic acid (its near relation and a constituent of tar oil) can be completely disposed of, a most important fact in connection with the exposure of timber to sea water.

Viewing all these fact in their bearing upon specifications, it would seem as if the London oils, as they come from the still, are not sufficiently volatile, nor do they comply with the requirements as regards the percentage of tar acids. A pressure is, therefore, put upon the manufacturers to meet the case by taking out some of the heavier portion by which the bulk is rendered lighter and the proportion of the tar acids to the diminished bulk is increased. But Mr. Boulton considers that this is a mistake and would rather relegate the lighter portions of the tar acids, and especially carbolic acid, to their proper position as sanitary antiseptic, for which they are unrivalled, and would encourage the use of the heavier portions. He also with the joint creosoting specification of Sir Fredric Abel and Dr. Tidy, who resolved to exclude no semi-solid bodies which completely melt at 100 deg. F., and further changed the standard of volatility for 90 per cent. at 600 deg. F. to 75 per cent.

Without going into the vexed regions as to the exact relations of putrefaction and the germ theory, the conclusions drawn are, that the best antiseptics for timber are to be found amongst oils and bitumens, which fill up the pores of the wood. Of such bodies, those that contain germicides are to be preferred, and other properties being equal, those which either solidify in the pores of the wood, or which require an extremely high temperature to votalize them, and which are insoluble in water, are the best of all. With regard to the creosoting process Mr. Boulton lays great strength on the hygrometic condition of the timber at the time of injection, neglect of which has been the cause of failure. The power of absorption of moisture in woody fibres is so great, fir timber being able to keep up as much as from 60 gallons to 150 gallons of water to the load of 50 cubic feet, that it has always proved a great difficulty in the way of treatment, as the subjecting of the timber to a dry heat invariably results in injury to it. Mr. Boulton has, however, successfully met the difficulty by a most ingenious combination of air pump action with the use of creosote heated up to 212 deg. F. With charges of very wet sleepers, he has withdrawn water equal in volume of 50 gallons per load of timber, the water being replaced with an equal volume of creosote by the action the air pump alone.—*Woods and Forests.*

---

JOHN MCCOSHEN, a lumberman, of Ottawa, and a member of the firm of Fraser & McCoshen, fell dead in Lawlor's hotel, Levis, immediately after taking his breakfast on August 17th.

## LEAKAGE AT TUBE ENDS.

Leakage at tube ends is one of the most frequent and annoying defects to which the ordinary horizontal and upright tubular boilers are subject, and while it is not necessarily on its first appearance dangerous, it indicates that something is wrong either in the construction or management of the boiler, and it should be attended to at once, for if neglected, the resulting corrosion of the head and tube ends will speedily induce a dangerous condition. Many explosions of upright tubular boilers have resulted solely from this cause.

Faults of construction may consist of insufficient rolling, or too severe rolling or expanding of the tubes, by which the ends may be split or cracked, so that it is impossible to keep them tight. The second defect is, perhaps, more frequent than the first. The feedpipe is also very frequently wrongly located in the head close to the tubes, and when it is, and cold feed water is used, the tubes in the immediate vicinity are almost sure to show a chronic leak.

A heavy coating of scale on the heads between the tubes is sure to set them leaking severely, as the water is thus kept away from the head and tube ends, and they become overheated. In this case the only thing that will do any permanent good is to remove the canse, that is the scale, when generally, if the defect has not existed for too long a time, the tubes may be rolled and made tight again. But a comparatively short time of severe leakage in this case is pretty sure to so severely corrode the ends that new tubes are required.

This collection of scale is also a fruitful source of burning and cracking of the back tube sheet. The front end of the boiler is not so much subject to this action, as the heat to which it is subject is not so intense.

The removal of a heavy coating of incrustation from between the tubes of a boiler is sometimes a matter of some difficulty unless due intelligence is used. With "staggered" tubes, very bad water, and where the boiler is worked hard, the case is much complicated, and the almost sole reliance is a judicious use of solvents, coupled with proper cleaning, as often as the boiler can be spared for the purpose. With properly arranged tubes, much help can be obtained by the use of proper chisels and scraping tools. Still no rule of procedure can be given that will apply to all cases. A thorough examination of each case is always necessary to determine the best method of procedure, and it is always easier to keep a boiler clean, than it is to clean it after it is badly fouled.—*Locomotive.*

## DARKENING OAK.

To render new oak wainscoting and oak furniture dark, and give it an antique appearance, we have it from good authority that ammonia is the cleanest, best and cheapest material that can be used, says *Timber*. The liquid stains commonly used are apt to rise the grain of the wood, make it rough, and it is with difficulty evenly applied, whereas in the use of ammonia it is simply the fumes that color the wood, and do it so completely that it is difficult to tell whether the wood is really new or old A correspondent states that the following process of treatment is the best: "Oak is fumigated by liquid ammonia, strength 800°, which may be bought at any wholesale chemist's at 5s. a gallon. The wood should be put in a dark and air tight compartment, and half a pint or so of ammonia poured into a plate, and placed upon the ground in the centre. This done, shut the entrance, and secure any cracks, if any, by pasted slips of paper. Remember that the ammonia does not touch the oak, but the gas that comes from it acts in a wondrous manner upon the tanic acid in that wood, and browns it so deeply that a shaving or two may actually be taken off without removing the color. The depth of shade will entirely depend upon the quantity of ammonia used and the time the wood is exposed. Try an odd bit first experimentally, and then use your own judgment."

---

THE big mill at Deseronto during July cut 3,787,320 feet of lumber. This included two weeks cutting on hemlock, black ash and basswood, which are not so easily or expeditiously handled.

# Chips.

MR. R. W. PHIPPS, Toronto, has gone to Massachusetts to gather information regarding forestry.

THE cut of logs on the Onconto river during the past winter was 43,000,000 feet against an average of 55,000,000 feet in previous years.

THE Duluth Lumber Company has this season sold 1,000,000 feet of lumber to the Port Arthur Lumber Company, of Port Arthur, Ont.

A STATEMENT is current in Washington Territory that 15,000,000 feet of lumber was recently cut off a single quarter section of land on Samish river.

TOMLINSON'S saw mill at Eastman's Springs took fire at a late hour on the night of August 13th, and was burned to the ground. A quantity of lumber was also destroyed. No insurance.

THE breakwater to protect the harbor of Port Arthur, Ont., north shore of Lake Superior, will be 2,000 feet long when completed. It will be composed of 20 cribs, built of 12x12 timbers, dovetailed and bolted.

ACCORDING to the custom house report, there was shipped from the port of Alpena, Mich., this year, up to July 31st, 78,860,000 feet of lumber, as compared to 67,000,000 feet for a corresponding time last year.

"WHEN I wus a young man," says Josh Billings, "I wus always in hurry to hold the big end of the log and do all the lifting. Now I am older I sieze the small end and do all the grunting."

AMABLE MAROIS sustained some severe injuries in the cedar mill at Deseronto on Aug. 11th. He tripped over the rails and fell in front of the car load of sleepers, which ran over him severely crushing his back.

THE *Banner* says that the Messrs. McBeth Bros. & Co., of Craighurst, have purchased an extensive timber limit in the vicinity of Huntsville, Northern Ontario. The berth contains some seventeen square miles and is well timbered. McBeth & Co. intend taking out board timber for the Quebec market this fall and winter.

STRAME'S saw mill, at Fordwick, Ont., was burned on Aug. 11th with nearly all the stock of lumber. No insurance. The loss will be fully from $12,000 to $15,000. Four hours' hard fighting saved the Toronto, Grey and Bruce station, and all the buildings in reach of the mill. Mr. Strame got badly hurt.

E. NELSON and W. H. Strohn, for the Cheboygan Lumber Company, of Cheboygan, Mich., recently went to the Spanish river region, north of Georgian Bay, Ont., to investigate the feasibility of booming grounds on that stream. The company owns a large amount of pine on Spanish river, but will probably not log any of it the coming seasan.

## DISINTEGRATION OF BUILDING STONE.

The sandstone commercially known as freestone, which is extensively used for building purposes in American cities, is subject to disintegration from the action of the sulpurous acid produced by the consumption of coal and from frost. There is much difference in the ability of various quarries to withstand these destructive influences. The outer surfaces of some buildings in New York and Philadelphia have been, by the advice of an eminent chemist, treated with a mixture of paraffine and carbolic acid with apparently good results. The flat surfaces are warmed by means of a steve like a plumber's stove, but with a flat side, and the paraffine when applied in a melted condition penetrates the stone readily, it is said that in some instances to the depth of one and one-half inches. Mouldings and carved wood are heated by means of a blast flame from India rubber bags of illuminating gas. Another process has been suggested, but the preliminary results do not appear to be of a satisfactory nature on account of its tendency to crach. In this process the mixture used is an artificial stone, and consists of three parts glass sand, three parts broken marble, two parts anhydrous clay, and two parts freshly slaked lime still warm. After a coat of the above has been applied wash it with water on the following day. The central portion and wings of the Capitol building at Washington were originally built of freestone, which disintegrated so rapidly as to threaten the permanence of the structure, and the whole was protected by several coats of white paint. The wings afterwards added to the above and now used for their House of Representatives and Senate Chamber, are built of white marble, which conforms in color to the central portion of the building, so the whole building appears to be made of marble.—*Engineering.*

### To Prevent Rust.

A practical machinist says he has found the following mixture very effectual in preventing machinery from gathering rust: Melt together one pound of lard and an ounce of gum camphor. Skim the mixture carefully, and stir in it a sufficient quantity of fine black lead to give it a color like iron. After cleaning the machinery thoroughly, smear it with this mixture, and allow it to remaiu thus for 24 hours. Then go over it with a soft cloth, rubbing it clean. Treated thus machinery often retains its brightness for several months.


### "Laugh and Grow Fat,"

is a precept easily preached, but not so easy to practice. If a person has no appetite, but a distressing nausea, sick-headache, dyspepsia, boils, or any other ill resulting from inaction of the bowels, it is impossible to get up such a laugh as will produce aldermanic corpulence. In order to laugh satisfactorily you must be well, and to be well you must have your bowels in good order. You can do this and laugh heartily with Dr. Pierce's "Pleasant Purgative Pellets," the little regulators of the liver and bowels and best promotors of jollity.

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

AUG. 24.—There is no change worthy of note in the state of the lumber trade here. The burnt district on the Esplanade will take considerable lumber to make all right again, but that is as a drop in the bucket, when taken into account with the amount of lumber arriving here daily. Lumber is being produced with a lavish hand as though it was a matter of the utmost moment to get the timber out of they way. This becomes more so year after year as the proportion of good to common becomes less, the anxiety to produce sufficient clear to meet the demand causes a large overstock of the coarser grades; and another strange feature of the trade is, that although there is no overproduction of bill stuff, the manufacturer persists in cutting inch lumber, the coarser grades of which sell on this market, by car load, at $8.50 to $10.00 per M, which if cut into bill lumber would readily command $11.00 per M, say nothing as to the extra time involved in cutting and waste in sawdust.

Basswood, which has usually commanded heavy sale on this market, has become nearly a drug. It is true sales of No. 1 and 2 can be effected at, say $14 00 on rail or vessel here. And this inspection, as carried out, means a perfect article, leaving over 50 per cent of the stock on the manufacturer's hands to get rid of as best he may. The American dealer is not to blame for this, over production is at the root of the whole matter. Mill men cannot look forward, as the farmer does, to reproduction in the future, when the supply of time is done that upon which he depended for a return of his capital is gone, and he must pull up stakes and move to fresh limits, and year after year this insane desire to get rid of our valuable timber increases, and future generations will mourn over the folly of their predecessors.

There is quite a limited quantity moving over our docks, but the local market is full up, and competition keen as ever, and it is not an unfrequent occurence for two or even three lumber dealers, or salesmen, to meet at a retailer's office, each making lower offers in order to secure a sale. So if the old proverb of competition being the life of trade is true, there should be any amount of life in the lumber trade here at present.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅞ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₩ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## MONTREAL.

*From Our Own Correspondent.*

AUG. 25.—Business for the past month has been fair, but rather quieter than for the previous one, but the business for that month was much larger than for the corresponding one of last year. Arrivals are about equal to last year. The demand from the United States for good lumber is still active, but coarse lumber is plentiful and in rather over supply. Prices remain very steady and we cannot make any change in quotations. We still quote ex yard as follows:—

| | |
|---|---|
| Pine, 1st quality, ₩ M | $35 00@40 00 |
| P ne, 2nd " ₩ M | 22 00@24 00 |
| Pine, shipping culls, ₩ M | 14 00@16 00 |
| Pine, 4th quality deals, ₩ M | 10 00@12 00 |
| Pine, mill culls, ₩ M | 7 00@ 9 00 |
| Spruce, ₩ M | 10 00@13 00 |
| Hemlock, ₩ M | 9 00@10 00 |
| Ash, run of log culls out, ₩ M | 20 00@25 00 |
| Bass, " " ₩ M | 12 00@18 00 |
| Oak, ₩ M | 40 00@50 00 |
| Walnut ₩ M | 60 00 100 00 |
| Cherry, ₩ M | 60 00@80 00 |
| Butternut, ₩ M | 25 00@35 00 |
| Birch, ₩ M | 20 00@25 00 |
| Hard Maple, ₩ M | 25 00@35 00 |
| Lath, ₩ M | 1 60@ 0 00 |
| Shingles, 1st, ₩ M | 3 00@ 0 00 |
| Shingles, 2nd, ₩ M | 2 50@ 0 00 |

CORDWOOD.

The demand has been poor, but prices remain firm, and retail prices are rather better, and for wood delivered fully $1.00 is obtained on our wholesale prices. Arrivals are not very large but still ample for existing demand. We quote as follows on the wharf ex cartage:

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

LIVERPOOL MARKETS.

Trade has been inanimate, and in Quebec goods the import has been on a fair scale, but no wholesale transactions have transpired. There have been private sales of Dalhousie, N. B., spruce deals, at £6; New Richmond, N. B., at £5 7s. 6d.; Richbucto, N. B., at £5 16s. 3d. and £5 17s. 6d. Auction sales of St. John, N. B., averaged £6 3s. 6d. and Halifax, N. S., £5 19s.

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of August 22nd says:—The port list shaws 222 cargo arrivals for the week, a considerable increase over the week preceding. The Monday morning fleet was not a large one, nor has there been a very crowded market all the week, leaving the inference that a large number of loads coming to port have gone directly to the yards. There has been a slight decrease in the amount of shingles arriving during the past few days, owing, no doubt, to the drop in prices. A number of cargoes of dimension from Lake Huron ports have put in an appearance, with a limited amount of coarse inch. The dimension has comprised considerable long stuff, that is seeking a market here in response to the cry of scarcity and the late advance in prices for that description of lumber. It is also likely that there has been a large amount of dimension bought at Huron ports, that has gone to the yards direct, and this cut no figure on the market. The condition of the market may be charaterized as firm on long dimension, somewhat lower on short green piece stuff, the same on the poorer qualities of No. 2 inch stock, but fairly firm for medium and No. 1 lumber.

Short green dimension is 25 cents a thousand lower than it was ten days ago. The decline was intimated last week, but how become pronounced and acknowledged. It is a great disappointment to the mill men, and it is not relished with a sharp appetite by anybody at this season of the year. It started with an overload at the time a holiday and Sunday came together, followed by a continuance of northerly winds that brought vessels into port from various points down the lake. The market was overloaded by bunching cargoes at an unfortunate time. The presence of vessels from Lake Huron ıd ports that are not commonly represented market haveserved to depress prices. Bı there is no law to keep them out, nor will they stay away as long as this is the only market that will readily dispose of stock in a dull season.

Short green dimension that was last year quoted at $8.75 to $9 can now be priced at $8.75 with occasionally a poor cargo selling at $8.50. A fair to good lot sells for $8 75. Long lengths, when bought separately, which is the rule at present, sell at a great advance on prices that prevailed in the spring. Such stuff as 2x12, 22 to 26, and 3x12 and 3x14 of long lengths, brings $13 to $14. Long length of 2x6, 2x8 and 2x10 are not so valuable, but if found liberally sprinkled in a cargo of stuff that sells for short dimension, the value of the load is thereby raised.

The majority of strictly No. 2 stock sells at $9.50 to $10, though there is stock, particularly if cut to order, that sells as high as $11. We hear of a cargo this week that changed hands at the latter figure. The range on the coarser quality of No. 2 stock is lower by 25 cents a thousand than it was ten days ago.

No. 1 boards and strips are tolerably firm in in value, though purchasers discriminate more sharply than they did earlier in the season. An instance or two in which cargoes of No. 1 sold at prices too high for the quality of the lumber, as showed up when unloaded, has made the yard men wary of inspection at distant ports. But when lumber is offered from well accredited log stocks and mills, it sells at good prices. A cargo from Muskegon was sold on Thursday at $18 a thousand, and some has lately been sold at $18.50. High grade boards and strips have been sold this season at $23 and $24 a thousand.

The late boom in shinglea has subsided to some degree. Shingles that sold two or three weeks ago at $2 a thousand can now be bought at $1 90. Extras have dropped about 7 cents a thousand.

Quotations on lumber and shingles are as follows:—

| | |
|---|---|
| Dimension, short, green | $ @ 8 75 |
| " long green | 11 00@13 00 |
| No. 2 boards and strips | 9 50@11 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@18 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 1 @ 1 80 |
| " clear | 2 15 |
| Lath | 1 20@ 1 50 |

Lake freight rates are quotable as follows:

| | |
|---|---|
| From Grand Haven, dry | $ 1 12½ |
| From Muskegon, by steam | 1 12½ |
| White Lake, dry | 1 25 |
| Ludington | 1 25 |
| Manistee | 1 25@1 37½ |
| Frankfort | 1 50 |
| Menominee | 1 37½ |
| Cheboygan, Duncan City, St. Ignace | 1 37½ |
| Alpena | 1 50 |
| Manistique | 1 50 |

AT THE YARDS.

It is an encouraging feature of current trade that while there are still dealers to be found who complain of dullness, none deny that trade is steadily increasing. This an important point gained among men who have acquired such a croaking about slow trade that it has become chronic. It sometimes requires considerable effort to screw the confession of a better business out of one of these gloomy minded men, but the result is worthy of the effort. In making these observations it should be distinctly understood that is not insisted that trade is as profitable as it should be; reference is only had to the amount of lumber going into distribution.

As an indication of the views of some dealers in regard to prices, it can be stated that travelling salesmen have been sent out with instructions to get list prices, or very nearly, or refuse orders. Some have returned, having carried out their instructions. Such were unable to sell but little lumber, for the reason that retail dealers still think that it is safe enough to buy for immediate wants only. Occasionally a dealer is found who is making no extraordinary effort to sell lumber, believing that he cannot urge sales without making concessions, and being unwilling to do so for the reason that he expects an advance in the near future.

Receipts of lumber, shingles, etc., from Jan. 1st to August 20th as reported from the Lumberman's Exchange:—

| | Lumber. | Shingles. |
|---|---|---|
| 1885 | 61,844,000 | 24,701,000 |
| 1884 | 48,905,000 | 22,735,000 |

FROM JANUARY JAN. 1, 1885, TO AUG. 20, 1885, INCLUSIVE.

| | Lumber. | Shingles. |
|---|---|---|
| 1885 | 946,787,000 | 367,953,000 |
| 1884 | 1,091,756,000 | 519,477,000 |
| Decrease | 143,969,000 | 151,524,000 |

STOCK ON HAND AUG. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 491,378,813 | 555,403,975 |
| Shingles | 312,749,770 | 321,872,364 |
| Lath | 52,343,550 | 51,582,455 |
| Pickets | 1,963,154 | 1,034,739 |
| Cedar posts | 757,820 | 377,658 |

LAKE RECEIPTS FROM JAN. 1 TO AUG. 20.

| | |
|---|---|
| Lumber | $306,396,000 |
| Shingles | 338,504,000 |
| Lath | 24,284,000 |
| Wood, cords | 17,443 |
| Posts | 2,403,054 |
| Railroad ties | 1,135,456 |
| Slabs, cords | 20,087 |
| Bark, cords | 11,887 |
| Poles | 37,200 |
| Spiles | 1,500 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

We change quotations on cedar shingles—no other change to make.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Packing | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1½, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₩ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₩ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₩ M | 100 @120 00 |
| Black waluut, ⅞ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1 inch | 28 00@30 00 |
| Scaymore, ⅞-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅞-inch | 28 00@30 00 |
| Ash, good, ₩ M | 40 00@43 00 |
| Ash, second quality, ₩ M | 25 00@30 00 |
| Cherry, good, ₩ M | 60 00@85 00 |
| Cherry, common, ₩ M | 25 00@30 00 |
| Oak, good, ₩ M | 40 00@43 00 |
| Oak, second quality, ₩ M | 20 00@25 00 |
| Basswood, ₩ M | 25 00@30 00 |
| Hickory, ₩ M | 40 00@40 00 |
| Maple, Canada, ₩ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₩ M | 38 00@40 00 |
| Shingles, shaved, pine, ₩ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 35@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₩ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## LIVERPOOL.

The *Timber Trades Journal* of Aug. 15th says:—The recent strong westerly and southerly gales have brought up the Channel during the past week a large number of timber and deal laden vessels, so that the quays are now well filled up with cargoes discharging and the docks with vessels waiting for berths. With all this pressure there does not, however, seem to be any marked increase in the consumption, although there is naturally under sueh circumstances a considerable quantity being forwarded to consumers under contracts made to arrive.

Moderate as the stocks are, taken as a whole, prices show no general tendency upwards, though in some cases there is an improvement.

This was shown at the auction sales of Wednesday, when spruce deals showed a distinct advance over previous rates, although perhaps, objection may be raised that the quantity offered was so small as to render the result hardly a safe criterion of the market.

Sawn pitch pine timber also showed some improvement, although a good proportion of the cargo offered was withdrawn; this was solely owing to the firm attitude of the broker, who declined to let the various lots go under reasonable limits.

### GLASGOW.

The *Timber Trades Journal* of August 15th says:—Parcels of deals continue to arrive here per steamers from Quebec and Montreal. The quantity imported since the season began is about the same as during corresponding period of last year, viz., 1885, 158,859 pieces, and 1884, 163,467 pieces.

The Clyde ships engaged in the Quebec log timber trade are slow of arriving at Greenock; the import list for the past week includes one other, making seven cargoes from Quebec since the season began, as compared with 12 at this time last year. The winds in the Atlantic are reported light and variable, and the passages are therefore longer than usual.

The demand at present being restricted by dull trade it is well that the import should be on a correspondingly limited scale, and already it is evident that this year's import to Clyde will, on the whole, be much smaller than the average. Pitch pine is an important item, and at present it shows about a third under the usual total import at this date.

A public sale of timber, which was well attended, took place at Greenock on the 6th inst., result as undernoted. There are some oncoming sales of deals, Quebec and lower port.

AUCTION SALE.

On 6th inst., at Grenock, Messrs. Allison, Cousland & Hamilton, brokers:—

| | | Per c. ft. |
|---|---|---|
| Quebec Waney boardwood— | | |
| 80 logs 50 c. ft. avg. per log | | 2s. 4d. |
| 20 " 46 " | | 1s. 11d. |
| 20 " " | | 1s. 9d. |
| Quebec Yellow pine— | | |
| 35 c. ft. avg per log | | 1s. 6d. |
| Quebec 2nd yellow pine deals— | | |
| 9 ft. | 7/16×3 | 2s. 6½d. |
| Quebec 2nd yellow pine ends— | | |
| 6 to 8 ft. | 7 21×3 | 2s. 0½d. |
| Quebec 4th yellow pine deals— | | |
| 14 ft. | 3/19×3 | 11½d. |
| 18 to 28 " | 12/21×3 | 11½d |
| 13 " | 7/19×3 | 11d. |
| 12 " | 7/24×3 | 11d. |
| 15 to 17 " | 7/19×3 | 11d. |
| 9 to 11 " | 7/20×3 | 9½d. |

### TYNE.

The *Timber Trades Journal* of Aug. 15th, says:—The arrivals of the past seven days have again been on a smaller scale, although amongst the number there are several goodsized cargoes of wood goods. Amongst them there are three Quebec cargoes, two from Doboy with pitch pine and several steamers with assorted cargoes from Norway and Sweden. A few cargoes of Quebec goods are off the coast, and will be dropping in with more or less frequency for the next two or three weeks, but of sawn goods from Norway and Sweden the greater part of the expected cargoes are now to hand, and there are few or no inquiries abroad for ships to load this season.

There is nothing new to report in the state of trade generally in the district; so far as the trades which mainly effect the timber trade are concerned there is nothing new to say regarding them, they are as low and feeble as it is possible to conceive. The only trade using timber which may be called busy is the housebuilding, and this is now showing less activity than it was two months ago.

So far the importations of this season have come forward in fairly good condition; complaints of inferior quality or bad condition have been fewer than formerly.

### LONDON.

The *Timber Trades Journal* of Aug. 15th says:—Things at the London docks, as elsewhere, continue very quiet, and, though some big cargoes have come forward, the want of bustle on the Thames is very noticeable. It is expected that the shortage in the supply between this and last year on Baltic deals alone with the present season amount to over a million pieces.

There is really nothing just now to stimulate speculation, and trade is seemingly being carried on at little or no profit. In the winter we shall doubtless see London prices much harder, but the interim for realization, in this age of steam, is, after all, not a very lengthened one, though the trade will doubtless turn it to good account.

The decline in the weekly rate of consumption on deals, &c., is becoming more noticeable from time to time; 789 standards of deals less were delivered last week than the previous one and 163 standards of flooring besides 127 loads of floated timber. There was a very similar dimunition in the corresponding week's deliveries last year, as if indicative of some slackening of the wheels. Of trade just at this time of the year comparing the week's deliveries with those of same date twelve months since, 1884 has the advantage of us by 814 standards of deals, but on flooring we gain by nearly 100 standards, though short on floated goods 125 loads or so. On the total de iveries since the 1st of January we are short of last year's consumption to the extent of 12,678 standards of sawn wood, though we have the advantage on floated timber by 700 loads that have been delivered up to date.

### CARDIFF.

The *Timber Trades Journal* of Aug. 15th says:—Since last week we have had several arrivals; one small cargo of deals from Darien, a pretty large cargo from St. John, one good sized cargo of deals from Bridgewater, one from Quebec with timber, another moderate-sized cargo of deals from St John, in all about 300 to 400 stds., one arrived with timber from Pensacola, and two of deals from Archangel, besides one market cargo in the Roads from West Bay, sold to Cardiff merchants, but we do not know yet where she is to discharge, whether here or at Sharpness.

So far the stocks have not increased anything to speak of, as a good deal of the wood has gone off to the Midlands, and we understand there is more sold for that district; but Sharpness will begin to play an important part in this direction, as we learn that Cardiff merchants can sell cheaper at Sharpness for transportation to the Midlands than they can accomplish from Cardiff—in fact, one of our large firms has established a branch office at Gloucester on this account; so that it now rests between the dock and railway companies to reduce their rates in order to secure the trade from here.

### WEST HARTLEPOOL.

The *Timber Trades Journal* of August 15th says:—The demand continues of a very quiet and steady nature. We, however, anticipate that a fair proportion of Quebec goods will be loaded up for orders ex ship, as very light stocks of this kind of wood have been seen here for some time past. There is also a better demand for the higher class redwood goods than for those of inferior quality, but taken as a whole the bulk of the recent imports are going into yard, and stocks are rapidly increasing. In the large timber department orders have been more plentiful; the principal business doing is in Stettin oak and pitch pine timber (both sawn and hewn), whilst a few good orders have been held for Swedish fir; in mining timber also a slight improvement has been seen in the weight of orders loaded up. The freight market continues dull and without any sign of improvement.

### WINNIPEG.

The *Commercial* of Aug. 18th says:—In the lumber business during the past week there cannot be said to be much improvement if any on the preceding one. There has been some demand noticed, but the orders coming in are not of any very great extent, and are easily filled, as most of the mills appear to be working along steadily, while although we do not hear of any actual cutting being done by the trade, prices are evidently anything but firm.

* * * * Secret, involuntarily drains upon the system cured in thirty days. Pamphlet giving particulars, three letter stamps. Address, World's Dispensary Medical Association, Buffalo, N. Y.

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prevents some doctors from advertising their skill, but we are bound by no such conventional rules, and think that if we make a discovery that is of benefit to our fellows, we ough to spread the fact to the whole land. Therefore we cause to be published throughout the land the fact that Dr. R. V. Pierce's "Golden Medical Discovery" is the best known remedy for consumption (scrofula of the lungs) and kindred diseases. Send two letter stamps for Dr. Pierce's complete treatise on consumption, with unsurpassed means of self-treatment. Address World's Dispensary Medical Association, Buffalo N. Y.

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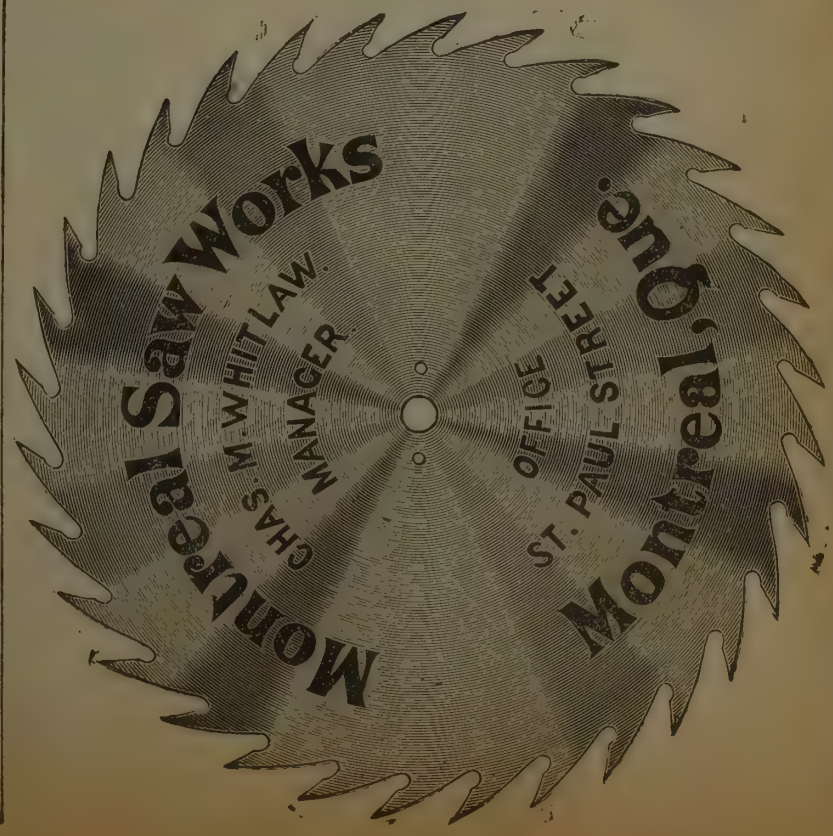
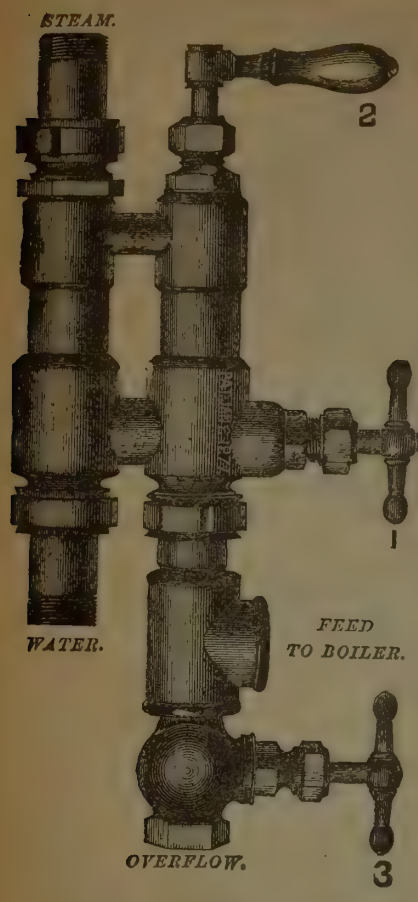



Catalogues and Price Lists furnished on application.

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**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

## The Injector Perfected!

**All sizes lift water 25 feet.**
**No adjustment required for varying Steam Pressures.**

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LUMBER DRIVERS'

# CALKS

**Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.**

**These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.**

## T. McAVITY & SONS,

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**Samples and Price Lists sent by mail on application.** L2

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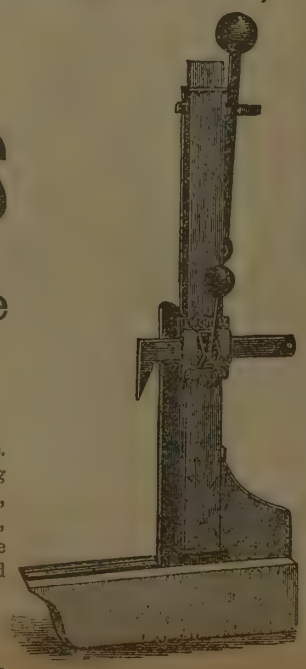
**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



EXCELSIOR DOG.

**Manufactured by HUGH GIBSON, CHATHAM.**

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**Manufacturers of**
**Patent Lap-Joint Star Rivet**

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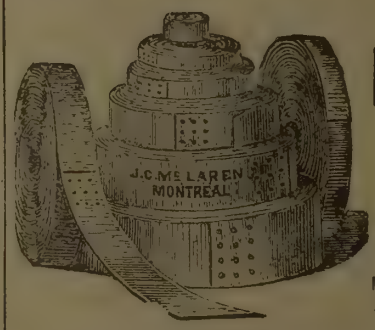
# OAK TANNED BELTING

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*EVERY BELT GUARANTEED*

**The Best Mills in the Country use it.**

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

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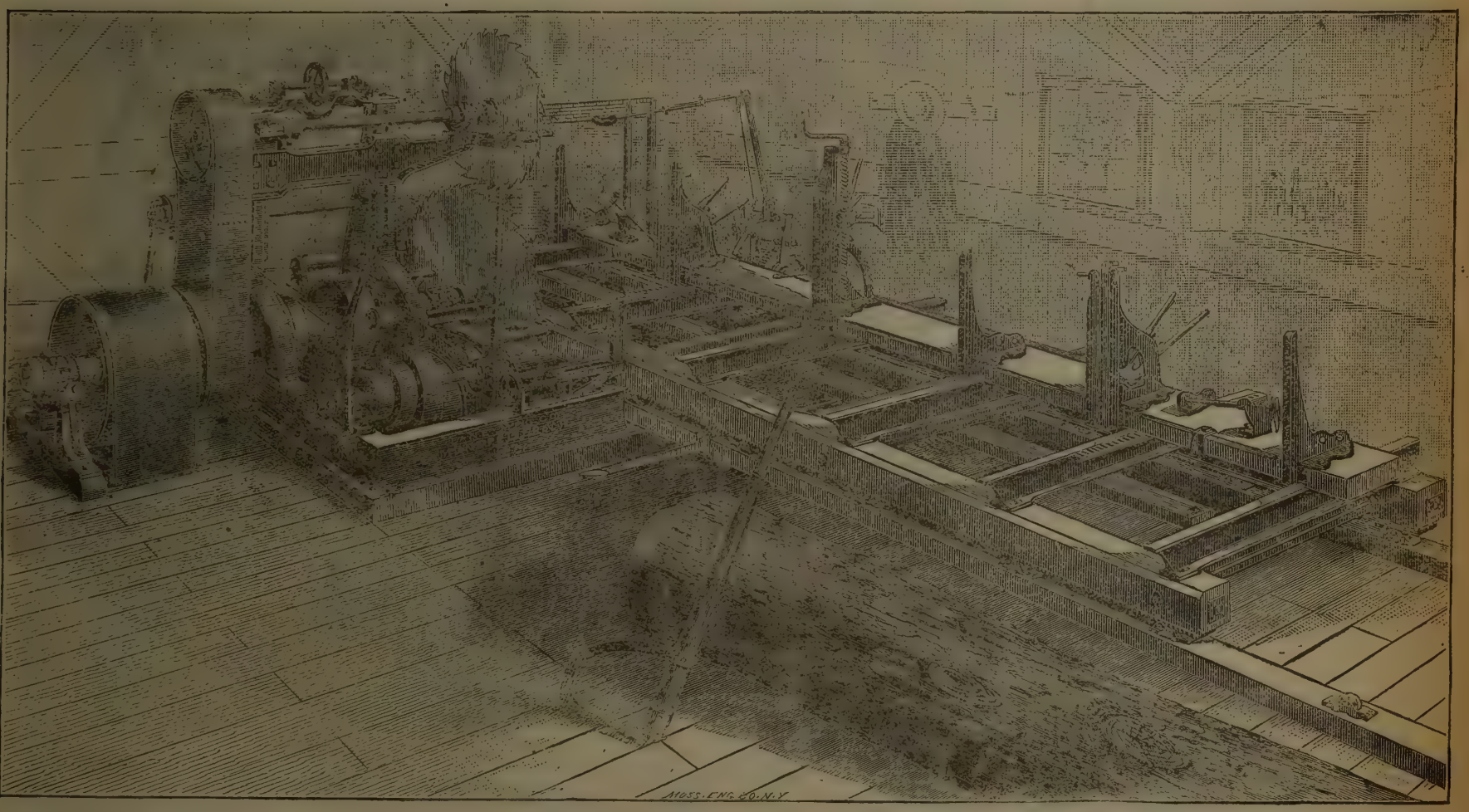


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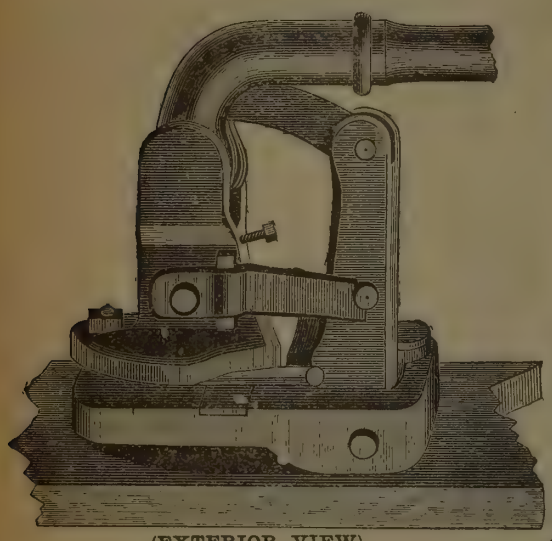

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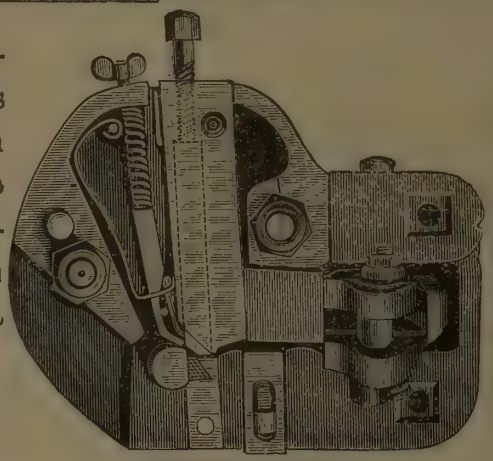
### IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.

*TRY IT!*

**Price $100, Cash 30 days.**



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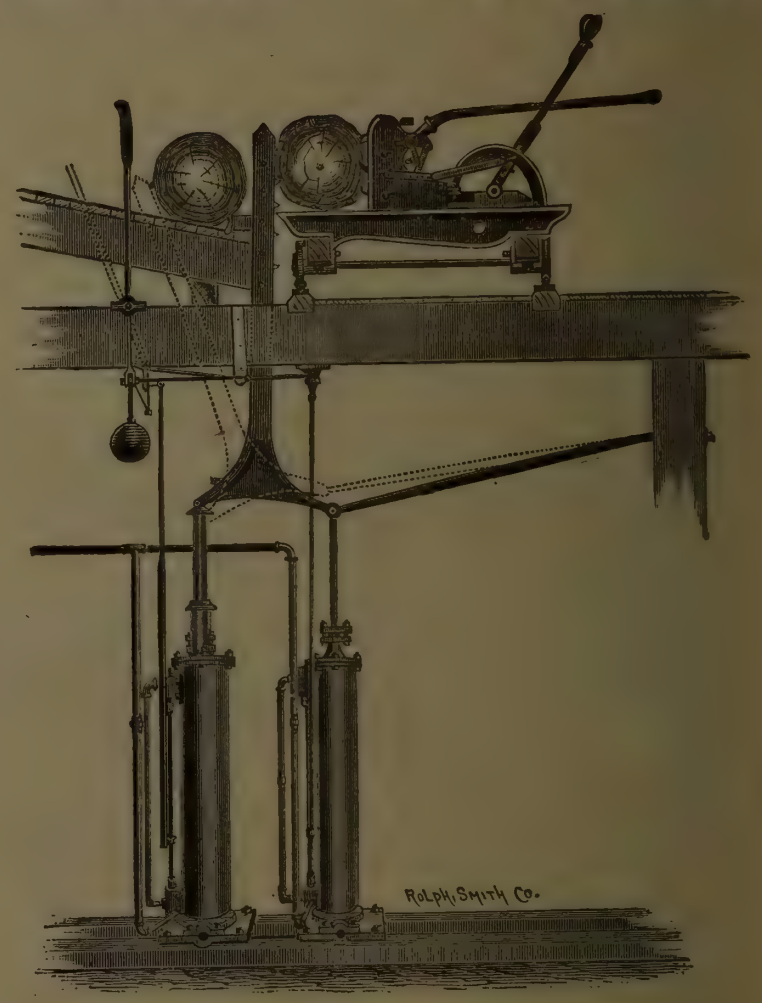


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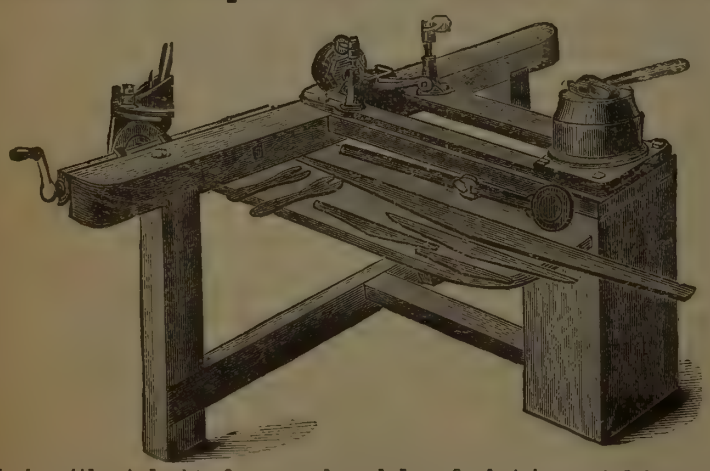
## Covel's Improved Saw Bench

*Price $50, Cash 30 Days.*



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This is without doubt, from my knowledge of what is wanted in every mill, together with the many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition or the File Room.

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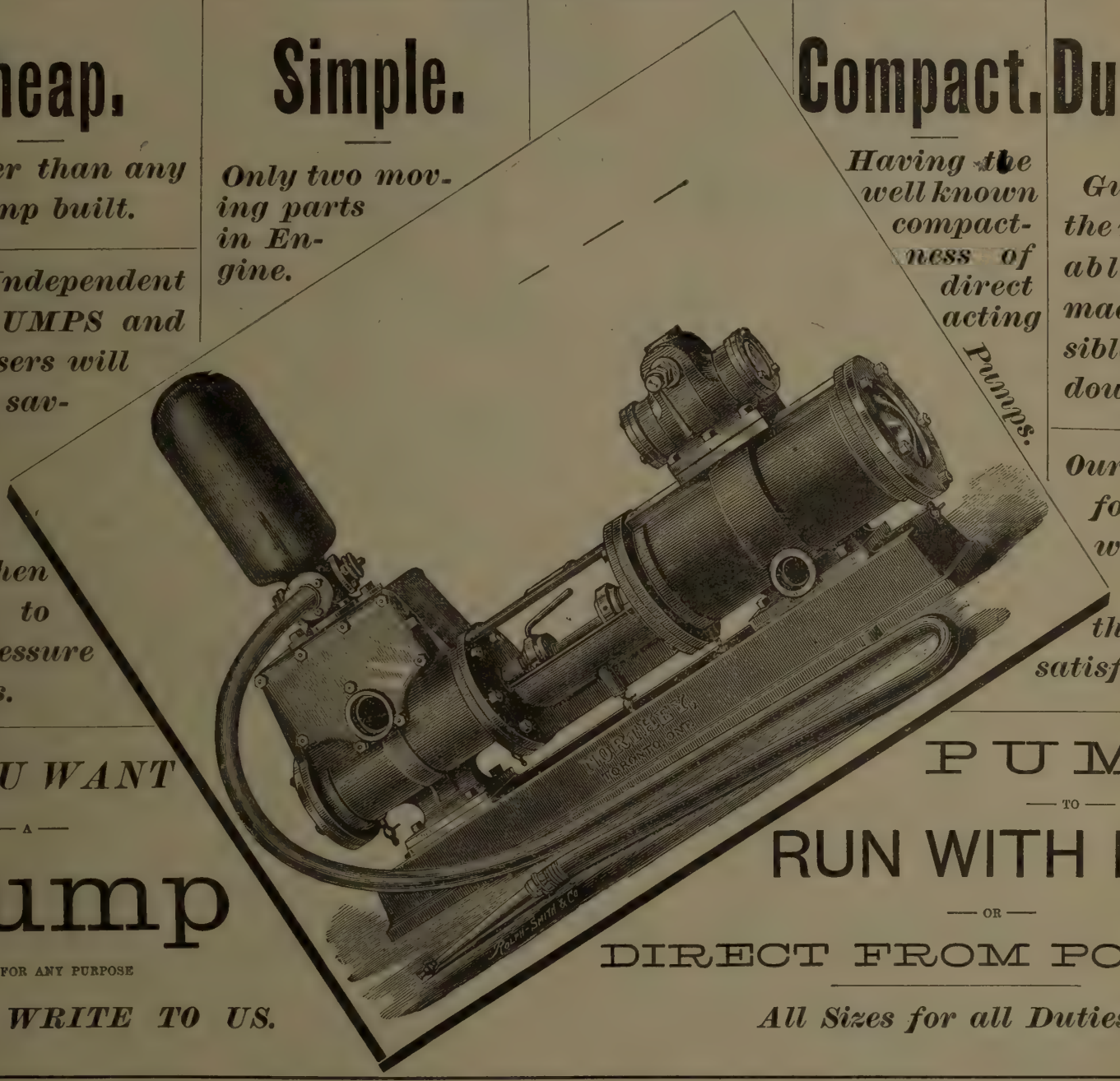
**Simple.**

*Only two moving parts in Engine.*

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*Having the well known compactness of direct acting Pumps.*

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*Guaranteed the most durable Pump made; impossible to break down.*

*Our PUMPS for general water supply give the greatest satisfaction.*

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## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

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Dear Sirs.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

TESTIMONIAL.

Peck, Benny & Co., Canal Horse Shoe and Nail Works, Montreal, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
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*The Best, therefore the Cheapest, Belt in the market.*
*Replaces, when used, all others.*
*More Pliable and Durable, especially at the splices.*
*Stretches but little, always retains it original width.*
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*Runs straight and true, does not start at the laps.*
*Single equals medium double.*

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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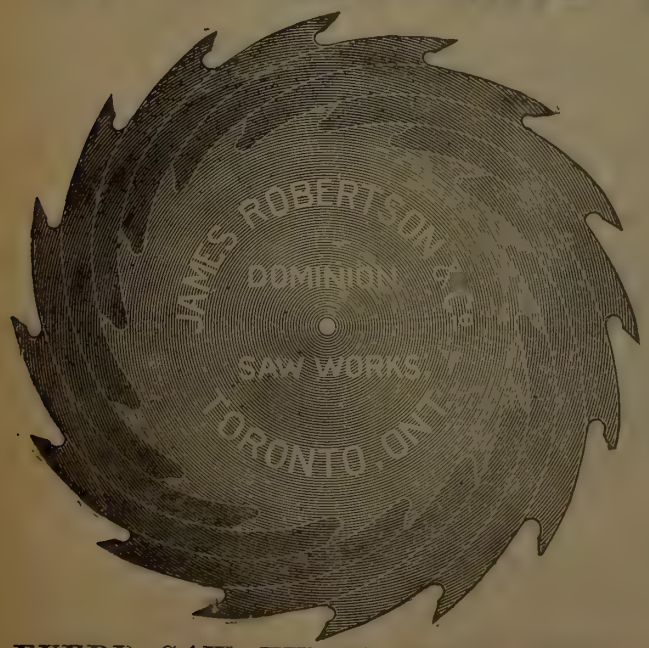


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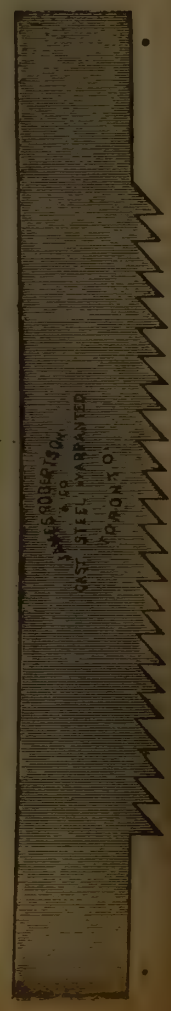


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## POINTS FOR MILL MEN.

CONCENTRATING OR DIVIDING POWER?

Skybone's mill was run by a 200 horse power "improved automatic" engine, and Skybone's ran a one-mule power "double compound condensing high-pressure" cussing machine when one little six-inch belt broke and he must needs stop the whole mill in order to fix that belt.

Skybone's finds that having every machine driven by one engine is not what it was cracked up to be. He can't see that he gains anything by it. It takes nearly as much fuel to run his big engine as it would to run several smaller machines; and even that is not much of a saving for fuel does not cost anything, so the nice patent engine is not appreciated much. If Skybone was up where coal was $12 per ton and wood $13 per cord, then it would pay to hunt around for "dandy" engines.

As things are generally found around saw mills, an engine with a good plain slide valve gives the best satisfaction, but the tendency now is to put in small independent engines, and as many of them are desired to be connected direct. They are necessarily made to run at high and consequently a different valve is needed.

Here is the keynote of success in building mills in the future. The old adage "a place for everything, and everything in its place" comes pretty near it for we will have "an engine to every machine, and each machine run by its own engine." A different valve is needed for these lightning engines. The slide-valve hardly does the work. The valve of an Armington and Symms engine is well adapted to quick work, but there is no way possible of taking up the wear of valve except by making a new one. The Westinghouse engine seems peculiarly adapted to this class of mill work, and gives satifaction in every case where it has been used.

Let a man run ten years with a big all connected mill, and then let him pull out his white elephant of an engine and put in half a dozen small engines. That man will think himself in the prophets' "seventh heaven" before he has run his mill six months.

It will not be many years before shafting must go. Many mills are running lines of shafting 100, 200, and even 300 feet in length varying from 1½" to 5" in diameter. It requires lots of power to keep this shafting in motion. In some cases over 50 per cent. of the indicated horse power, has been swallowed up between engine and saw, or planer. With water power especially, the amount of shafting that must be turned by that poor water wheel is a fearful item.

As above stated, shafting must go, and electricity is the agent which will turn shafting out of doors. In the present crude state of development which the science of electricity has attained, power can be transmitted with a loss of 40 to 50 per cent. and in some cases, even less. Now, if you have a big water power, just get a number of dynamo machines and set them to work at the river bank. Run wires to where you want your saws. Put an electric motor to each machine and you will have the best shafting in the world.

You will never be troubled with hot boxes, your shafting will never get out of line, nor will your belts break, or get caught and wind in around set screws or pulley hubs.

Small saws can have motors connected direct, while with most machines, belting from motor to machine would bring the speed right.

Steam feed is the best known to-day for sawing lumber, but it will in time be superseded by a little motor geared to the carriage. Any person who has ever had opportunity to watch the operation of an electric railway, cannot but be impressed with the fitness of electricity for this purpose. The ease with which it is controlled is a great point in its favor. The movement of a finger for five or six inches is sufficient to change from quick to slow feed and even to a quick reverse.

To come back to the main question, we must have divided motor power, no matter whether it is derived from one big river, or from a battery of steam boilers. As before stated, it does not pay to shut down twenty machines and keep fifty idle in order to mend one miserable belt, or to connect one or two machines. Another great point is in the ease with which repairs can be made when the power is divided.

SUNDAY WORK.

The big engine or water wheel requires more or less Sunday work, and Sunday work doesn't pay. If any thing about the big mill shows signs of needing repairs, the verdict is "let it go until Sunday," and when Sunday comes all hands care more about getting out of the mill than they do about getting the work done properly. Things are smashed with "good enough," or "dont't give a cuss," and Bob, Tom and Mike get themselves away as quickly as possible, leaving behind them jobs patched with a "chip and string," when good solid work should have been put into them. Such make-shifts last about two days, then give out again and the mill shuts down three hours while you patch up again so it will go till Sunday.

There is nothing in the mechanical line which will so completely demoralize a mechanic as to be obliged to work on Sundays on repair work. It is not profitable. It does not pay the owner any more than it does the mechanic. Many a good man has spoiled himself by Sunday work. We should stop it. To stop it we must reconstruct some of our old mills, and put in independent engines, and rig things in such a manner that we can stop one machine without delaying eight or ten, and until this is done we shall always be troubled with half repaired jobs, botched work and sneaking workmen. Let us start this thing as it should go, and not get into the custom of looking upon Sunday as a repair day. It will not take long if we keep on as we are going now, to get so accustomed to Sunday work that it will be required as a matter of course. Give this matter a thought. It is the right course, and it will pay us to adopt it and then—stick to it.

THE HAND-JOINTER.

Lots of mills still use the old hand-edger, or jointer, consisting of a long hand carriage running upon trucks, by a circular saw. To operate this machine unless it is in tiptop condition is misery complete. You put a thick board on that carriage and then push until you wish one leg was three inches shorter than its mate, and can almost imagine yourself leading a stubborn cow along a steep hillside.

This hang-edging business is a thing of the past in many mills; and should be laid on the shelf in all. Live rolls are the things to have where hand work must be done, but it is better to get a regular machine which needs no more hard labor than is required by a planer.

Poor work and little of it is the rule with a hand jointer when you joint one edge of a board and then turn it over and joint the other edge. Two saws do much better work than one. Run work between them and if the work does not come out parallel, then there is a good opportunity to find the reason why.

With a hand jointer, if the saw is not exquisitely sharp and true, you can feel the board draw along under your hand while it is cutting, and the board will come out small at either end and large in the middle. If a board is twisted the edges will not be square. One end will be square while the edge at the other end is bevelling, or standing from 1-16 to ¼ of an inch. Pull out the old jointer, and put in a gang edger and a power jointer. Don't be trudging along 50 years behind in this particular when you have a log band saw and a dozen other improved machines.

FIRES.

There is nothing which can clean out a saw mill as quickly as fire, and there is nothing which the mill man is so careless about as he is with fire, if we except his boilers, and sometimes we think that they are neglected just because there is fire under them. Carelessness in this direction almost amounts to insanity and we can say that some mill owners are fools about handling fire. They have shavings lying about everywhere and if fire drops out of the boiler furnace, they will smother it out with a cart-load of fresh shavings. See how they blow shavings into a fire room. It is outrageous. It should be made a criminal offence, liable to severe punishment.

The insurance chaps catch on to this point a little and make owners of mills pay big premiums, but even the underwriters do not know of one half the rottenness therein. There is no excuse for this idiocy with fire except pure unadulterated laziness and foolishness.

Mr. J. F. Langdon hit the nail very squarely on the head when he said "all spontaneous combustion in mills generally arose from spontaneous carelessness" on the part of somebody. He might have said everybody connected with woodworking establishments, and then he would not have exaggerated at all.

The fellow who put his blower to work before he opened the damper of his boiler, was a fool; when the fire puffed out of the furnace doors and set the pile of shavings all afire, he wished he was somewhere else. This case is no fancy sketch. It happened not long since in Chelsea, Mass., and fifty men in the next building had to get out so quickly that they could not take their bench tools with them.

Piling lumber on top of a boiler to dry, is another foolhardy makeshift. We have seen it often tried, and we have had to get up in the night and turn a hydrant stream on it to keep the mill from going up in smoke.

Another fool of our acquaintance had a defective wall between boiler and dry room, and always kept a barrel of water close to the dry-room door in order to put out the sparks which occasionally blew themselves through the cracks and set fire to the lumber! This man was surely a fool, but he has many comrades. He is not alone in it by any means.

Live steam in a dry room is another cause of fire, but it is nothing in comparison with the danger arising from steam heating pipes. Very often they run under benches, through piles of lumber and among piles of shaving. The fine dry dust collects on them, the shavings pack down and become like tinder, while a bearing overhead is already to drop a little oil down upon the mass of touchwood, and the first we know, our spontaneous combustion, our mill goes up and again the daily paper says, "Mr. Fool's saw mill burned last night, cause unknown.—*J. F. Hobart in Saw Mill Gazette.*

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THE two new canal basins that were opened at Montreal recently are known as St. Gabriel Nos. 3 and 4. One of them is about 740 feet ong, the other about 620 feet, both being 125 feet wide, with a depth of water of 13 feet. The cest is in the neighborhood of $150,000. They are intended for the use of the lumber and cordwood trade, which have had rather crowded quarters. The spaces round the basins will be divided into lots, which will be rented, but this will probably not be done until next season. Altogether there will be somewhere about thirty lots. The new basins will be a great accommodation to the lumber trade, as the dealers will be enabled to leave their lumber where it is unloaded, for a time, and ship it from there, instead of being compelled to cart it away to the yards.

## THE SPEED OF SAWS.

The speed at which circular saws are run in great saw mill establishments, says *The Age of Steel*, is one of the curiosities of the age. Even 6-foot saws are run 720 revolutions to the minute, which seems to be the maximum speed for successful sawing. Running at 750 revolutions to the minute, the teeth of a 6 foot saw are travelling nearly three miles a minute, a speed which is very hard to contemplate. Six foot saws have been driven at as high a rate of speed as880 revolutions to the minute, and in Michigan a few years ago a Canadian Company with an immense capital geared up their mill to run their six foot saw 850 revoultions to the minute ; but at such high rates of speed as these lumber has never been successfully made, for reasons that are obvious. John Orm's mill, at Puducah, Ky., which a 76 inch saw and steam feed, cut, on May 19th, 1877, 10,571 feet of 1 inch poplar boards in 69½ minutes. This was looked upon as a great achievement by Mr. Orm, and the result was given on his letter heads, with a head of horns for parenthese, and sawyers were invited to beat the showing and take the horns. It is worthy of notice that in this trail the saw made no saw dust ; each tooth tore out a strip of wood about one-quarter of an inch thick, and many of these have been kept as souvenirs. But Michigan sawyers probably beat the world on fast sawing ; wonderful stories come floating down from the lumber regions of that State about "a day's big work." Some time ago we heard of a mill dropping sixteen 1 inch 16 foot boards a minute, but this was probably an exaggeration. Locally some very good sawing has been done also by a new mill, but inasmuch as the possibilities of the mill have not been fully developed we refrain from alludin g to the results.

The old-time sawyer is a character. His calling keeps him in the back woods, where he has few opportunities of noting the progress of the industries and the march of improvements, so that his head is filled with all sorts of obsolete notions. For instance, he will conclude that for good sawing a saw must have just so many teeth ; and it is the observation of generations that the number of teeth required never exceeds the number in the sawyer's saw, though the latter article may have come down to him from his grandfather, in whose days saw teeth were fewer and farther apart than nowadays. And this prejudice is not wholly limited to the old-time sawyers, for saw manufacturers here report that since Northern men have gone into the South in recent years they find it unprofitable to carry stocks in southern cities, as was formerly the practice. Without a saw is of exactly the right size and happens to have exactly the right number and kind of teeth, the buyer orders one from the factory. A prominent local firm which used to carry a stock of saws valued at $40,000 at New Orleans has discontinued the practice, and now supplies its agency in that city and another agency in Chicago with only enough saws for samples.

The sawyer is naturally fond of boasting, and his saw is the pride of heart. When he has to have his saw "fixed" he must watch every operation to see that no harm comes to it. If he is an old time sawyer he will be very careful to tell you just exactly what he doesn't want done. And then after he has done all this he follows the saw into the faotory and superintends the work of repairing it, commenting the while upon its great achievements. Even in Pike County, Missouri, and Pike County, Illinois, some of these old time sawyers are to be discovered. Not infrequently some of these have work done at local establishments, and it is amusing to hear them talk of "big sawing." Some time ago a Pike County sawyer, who had an old twisted, snaggle-toothed circular to be repaired, presented himself at a local saw-works, and after explaining the object of his visit was blandly asked by the superintendent how much lumber he could saw in a day with that saw. "Well, I have sawed as high as 5,000 feet in a day," replied the sawyer, "which I know is a pretty big figure, for it beat all of 'em in my part of the country, but it's a fact, mister, as sure as I'm set'n here."

"You don't mean to say you have sawed 5,000 feet in a day with this saw !"

"Yes, sir, it's a gospel fact and I can prove it by 20 witnesses. There's Hiram Brown, John Butterfield," (and then he gave the names of the rest of the witnesses.)

"Now, what would you say," finally remarked the superintendent, "if I were to tell you that there are saw mills that turn out more than twice as much lumber in an hour as you can turn out in a day."

"Without you seed the mills yourself I'd say you didn't know what you was talking about."

Then the superintendent went out and returned with John Orm's printed statement of 10,571 feet sawed in 69½ minutes. This, the old fellow thought, was one of "them printed lies."

## THE NEW TRACTION ENGINE.

*From the Ontario Reformer, August 28th.*

The New Traction Engine mentioned in a late issue, arrived in town early on Monday morning in a drenching rain which continued until three, p. m. The roads were very muddy and many thought the New Traction could not come up town through the mud ; but about half past three steam was let on and the little iron horse started for the town. Some loads of coal had been brought from the lake and met the engine on Simcoe Street. The horses were taken from the waggons and connection made to the engine by chains, until a load of eleven tons was made up of coal, waggons, and boys and men, and yet with only 40 lbs. of steam pressure, the load was taken to the gate of the Jos. Hall Machine Works. No difficulty was experienced in turning the corner at the Town Hall. The following day four holes were dug in the foundry yard 1½ feet deep, and the engine steamed into them and stopped, when steam was let on again, it passed out both forward and backward without any difficulty. This seemed a very severe test, but Mr. Galloway then directed that a hardwood scantling eight inches square be laid in front of the holes, and the engine again steamed into them and stopped, started again and passed over the scantling. Still not satisfied, Mr Galloway directed that the engine he backed over the scantling into and out of the holes, These very severe tests were gone through with twenty times or more, and were easily effected. The Governor Belt was then taken off and the engine driven at the rate of seven miles an hour. Two New Model Threshers and a Dingee Horse Power were then chained together and hitched behind the engine and tender, and started for the G. T. R. Station. On its way it turned three right angles and steamed its load up under the crane at the station, uncoupled, turned around and returned to the Hall Works as readily as a team of horses. Yesterday loads of coal, pig iron, a thresher, and an ordinary portable engine were coupled together, making 21 tons 700 lbs. Thirty boys climbed into the wagons, makin a load of 23 tons, not counting the engine. Steam was let on and in a moment the train was in motion. Mr. Galloway assures us that he could readily have drawn 30 tons to the station had the coal and water tender been strong enough to have chained the load to, so that a constant supply of water could have been pumped into the boiler, and that with less than one forth of a ton of coal he could have hauled it to the lake, with only a ten horse power engine. Mr. Galloway, the mechanical superintendent of the Hall Works, deserve great credit for the manner in which he conducted all the various experiments. Although he had not handled a Traction Engine for nearly fifteen years, he brought it up from the station, through the mud. drawing eleven tons, without an accident. of any kind. He showed perfect control of the engine and good judgement in testing its capacity. While familiar with the developments in Tracton Engines in Great Britain and the United States, he assures us that this engine is infinitely in advance of any he has ever seen or heard of. From our standpoint this engine marks an important era in the use of steam power, hardly second to the Railway Engine. It has more than fulfilled the claims we set forth in a late issue. The proprietors of the Jos. Hall Machine Works have the exclusive control of the patent for Canada for fifteen years.

We learn that a second engine has been purchased of Messrs. Wood, Taber & Morse, and is on the way here for the exhibition at London and other places, and the one here will be snown at Toronto.

THIS TRULY WONDERFUL MOTIVE POWER GIVES TO THE HALL WORKS THE VERY FIRST POSITION IN THE DOMINION AS BUILDERS OF AGRICULTURAL MACHINERY. The New Model Thresher, the Hall Thresher, the Collins Patent Clover Thresher, the Pitt's, Planet, California, and Dingee Horse Powers (mounted and down,) the Oshawa Engine, the Rnbicon, Traction Engine, Walrath's Patent Straw burning Engine, with and without traction attachment, Reapers, Mowers, Seeders, Grain Drills, Coal and Water Tenders, &c., all of the very best models, make a list that no other establishment in the Dominion of Canada, or even in the United States, can offer to the farmers. To Oshawa it means more than we have space in this issue to foretell.

Just as we are going to press the little steam horse has started with its coal and water tender and a New Model Thresher, for the top of the high hill north of Whitby town.

## AGAIN IN OPERATION.

The Flint & Holton saw mill resumed operations yesterday morning. It will be remembered that their mill and planing factory were consumed by fire last February. As soon as the weather would permit, the work of reconstruction began and has resulted in the saw mill being erected on the old site, which will have increased power and capacity over the mill consumed. The boilers, which did service before the fire, were found in good condition and are still doing service. A fine 120 horse power engine, from the Hamilton Manufacturing Co, Peterborough, furnishes the power. The stone walls and the boiler are all there is to remind one of the old mill ; all the other furnishings are new throughout. Owing to the lateness of the season, it is not probable that the planing mill will rebuild until next season. This mill, instead of occupying a wing, as before the fire, will be in the part of the building formerly occupied by the elevator. The heavy losses sustained by this well known firm, and the phœnix like manner in which they survived these difficulties, commend them to the patronage they so long and deservedly received before the fire.—*Belleville Intelligencer.*

## DARKENING OAK.

A correspondent in the *English Machine* gives the following process of treatment for darkening oak which he considers the best, after trying the various other processes used by the cabinet makers and builders to darken woods :

"Oak is fumigated by liquid ammonia, strength 880 degrees, which may be bought at any wholesale chemist's at 5s a gallon. The wood should be placed in a dark and air tight room, in a big packing case, if you like, and half a pint or so of ammonia poured into a soup plate and placed upon the ground in the centre of the department. This done shut the entrance, and secure cracks, if any, by pasted slips of paper. Remember that the ammonia does not touch the oak, but the gas that comes from it acts in a wondrous manner upon the tanic acid in the wood, and browns it so deeply that a shaving or two may actually be taken off without removing the color. The depth of shade will entirely depend upon the quantity of ammonia used and the time the wood is exposed. Try an odd bit first experimentally, and then use your own judgment."

## ARTIFICIAL WEATHERING OF WOOD.

In an article on the preparation of wood for car finish, the *National Car Builder* mentions a Japanese method of treating wood for back grounds of ornamental work, which it regards as well worthy of attention. It consists, it says, in removing the softer portions of the fibre so as to leave the remaining grain in high relief—a sort of artificial weathering by which the softer portions are worn away. The method has not been very clearly described, but it appears from the information given that materials like Dutch rushes are employed to scour or grind away the surface. The boards are sometimes quarter-sawed, but more frequently they seem to have been taken nearly through the heart and at a small angle with it. This gives long sweeping curves to the grain. After the required relief has been attained the wood is filled. The final coats seem to be a hard wax finish without a polish. For panels the effect is superb. As a back ground for metal work in relief, or for carving, it would be difficult to find anything richer. To produce such work does not appear very difficult. Although the cost of such panels in Japan is very great, they need not be expensive here. The hand labor necessary for wearing down the wood may be easily replaced by machinery. The desired effect would then be obtained quickly as well as easily. Probably the same results can be obtained by the use of the sand blast or with steel brushes. The first car builder who introduces this style of ornamentation will have something not only unique but beautiful. In many respects it would be more attractive than the stamped leather and the Lincrusta, now so fashionable. As patterns for stamped leather, these wood designs would be very desirable, and if we cannot have the original, it might be possible to get an imitation by the electrotype process which would answer every purpose.

## THE CANADIAN PACIFIC RAILWAY.

Rails have been laid on the western end to a point sixty miles west of the Columbia river. On the eastern end of the track is laid within forty miles of the Columbia (second crossing). The gap has, therefore, been reduced to 100 miles, and in that gap a great part of the roadbed is ready for the rails. All the garding up to within eighteen miles of the Columbia on this side will be finished by the middle of September and all the rails on this end will be laid. It is said that there are not rails enough at Port Moody to complete the track to the Columbia, and that rails will be brought over the road from the east. Track is laid at the rate of about one mile per day at each end, and it is not expected there will be any serious interruption. The last spike will be driven about the end of October. Upon that occasion it is expected a large number of notables will come over from the east, although it is not likely there will be any public excursion After the track has been joined there will remain a great deal of work before the road will be fairly ready for traffic, and it will probably not be really opened until some time next spring In the meantime the extension and branch at this end, and the necessary terminal buildings and wharves, will be going on so as to be ready for through traffic. By that time it is expected that arrangements will have been completed for putting teamships on the various routes on the Pacific ocean.—*British Columbian.*

A DESPATCH from Ottawa on Sept 10th says : From present indications it is evident that in lumbering operations on the upper Ottawa this season the cut of square timber will be small, while there will be a great increase in logs. The square timber market in Quebec has been dull this year, so that lumbermen feel that a curtailment in the manufacture of square timber is a very great necessity. In sawn lumber there has been a very good demand at fair prices, so that the log trade has got an impetus.

**TAR may be removed from the hands by rubbing with the outside of fresh orange or lemon peel and drying immediately. The volatile oils dissolve the tar so that it can be rubbed off.**

• • • • Secret, involuntarily drains upon the system cured in thirty days. Pamphlet giving particulars, three letter stamps. Address, World's Dispensary Medical Association, Buffalo, N. Y.

**Advice to Mothers.**

**Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhœa, regulates the stomach and boweis, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world Price 25 cents a bottle.**

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### ICEBERG DUST.

One of the most interesting facts contributed by Prof. Fordenskjord to Popular Science is contained in his account of his examination—when apout 80° north latitude, before reaching Parry's island, to northwest of Spitsbergen—of the snow which covered the icebergs, and which had come from a still higher latitude. He found it strewn with a multitude of minute black particles, spread over the surface or situated at the bottom of little pits, a great number of which were to be seen on the outward layer of snow; many of such particles were also lodged in the inferior strata. This dust, which became gray on drying, the professor found to contain a large proportion of metallic particles attracted by the magnet, and capable of decomposing sulphate of copper. An observation made a little later upon other icebergs proved the presence of similar dust in a layer of granulated crystalline snow situated beneath a stratum of light, fresh snow, and another of hardened snow. Upon analysis the professor found this matter to be composed in varing proportions of metallic iron, phosphorus, cobalt and fragments of diatomaceæ.—*New York Sun.*


**What it has Done.**

Mr. George Simpson, Toronto, says: "I have suffered severely with corns, and was unable to get relief from treatment of any kind until I was recommended to try Holloway's Corn Cure. After applying it for a few days I was enabled to remove the corn, root and branch—no pain whatever, and no inconvenience in using it. I can heartily recommend it to all suffering from corns."

GRAND
## Colonial Exhibition in London,
ENGLAND, 1886.

FIFTY-FOUR THOUSAND FEET RESERVED FOR CANADA.

**First Royal Exhibition Commission Since 1862.**

THE COLONIAL AND INDIAN EXHIBITION to be held in LONDON, England, commencing MAY 1st, 1886, is intended to be on a scale of great magnitude, having for object to mark an epoch in the relations of all the parts of the British Empire with each other.

In order to give becoming significance to the event, a Royal Commission is issued for the holding of this Exhibition, for the first time since 1862; and His Royal Highness the Prince of Wales has been appointed President by Her Majesty.

The very large space of 54,000 square feet has been allotted to the Dominion of Canada by command of the President, His Royal Highness.

This Exhibition is to be purely Colonial and Indian, and no competition from the United Kingdom or from foreign nations will be permitted, the object being to exhibit to the world at large what the Colonies can do.

The grandest opportunity ever offered to Canada is thus afforded to show the distinguished place she occupies, by the progress she has made in AGRICULTURE, in HORTICULTURE, in the INDUSTRIAL and FINE ARTS, in the MANUFACTURING INDUSTRIES, in the NEWEST IMPROVEMENTS IN MANUFACTURING MACHINERY and IMPLIMENTS, in PUBLIC WORKS by MODELS and DESIGNS; also in an adequate display of her vast resources in the FISHERIES, and in FOREST and MINERAL wealth, and also in SHIPPING.

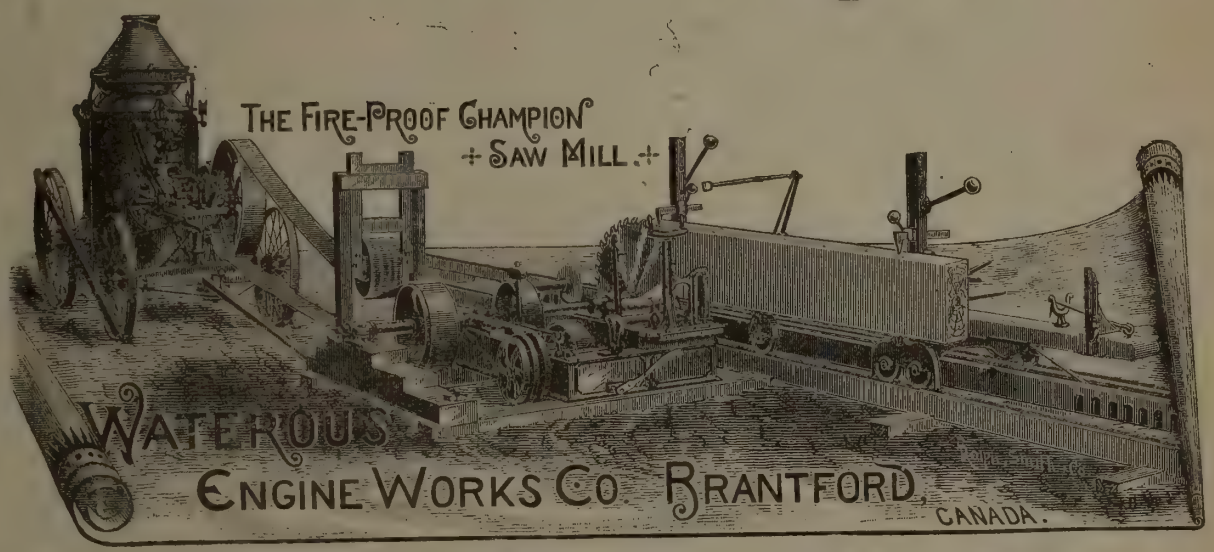
All Canadians of all parties and classes are invited to come forward and vie with each other in endeavouring on this great occasion to put Canada in her true place as the premier colony of the British Empire, and to establish her proper position before the world.

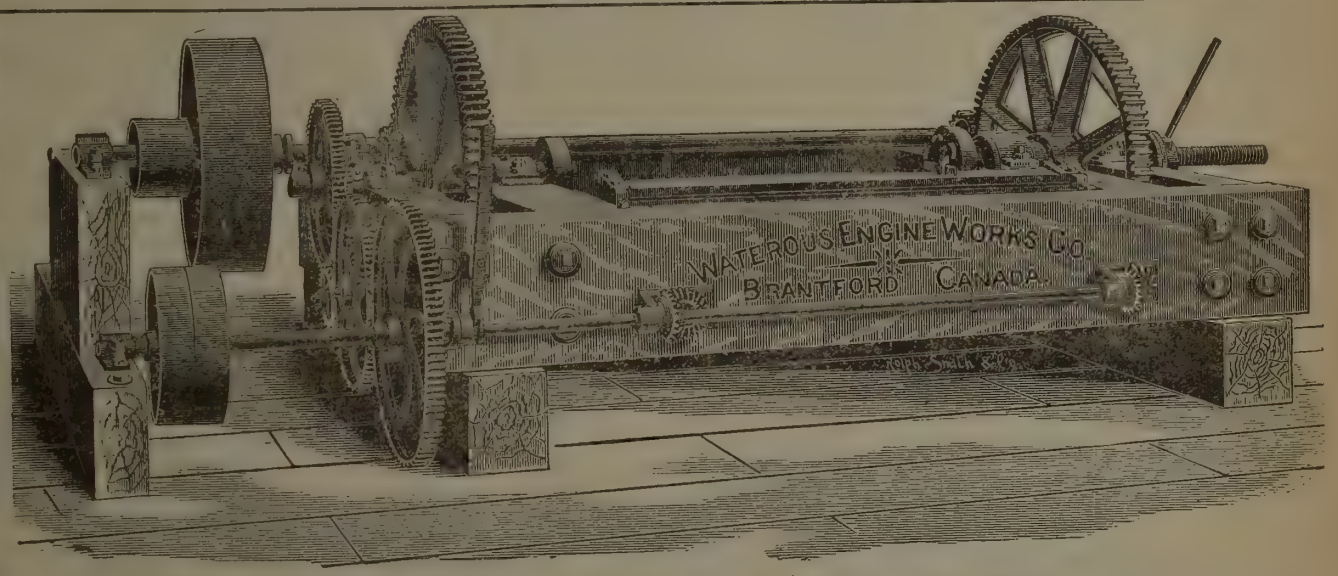
Every farmer, every producer, and every manufacturer, has interest in assisting, is having been already demonstrated that extension of trade always follows such efforts.

By order,
JOHN LOWE,
Sec. of the Dept. of Agriculture.

Ottawa, 1st. Sept., 1885. 8w3

## PORTABLE AND STATIONARY
# SAW-MILLS AND SAW-MILL MACHINERY

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## AT THE REVIEW BOOK BINDERY.

## MORTAR AS A BUILDING MATERIAL.

A good deal has been said and written latterly, and even adjudicated upon, about the ingredients and composition of mortar for housebuilding, it being, in fact, very generally complained of when, as not unfrequently happens, we hear of a row new houses, tumbling down, as it were, of their own accord, and without waiting for the suspicion of an earthquake or hurricane to afford them a decent excuse for so doing.

Then arises the question of how the mortar was made, and generally this one inconsiderable material has to stand the racket for all the rest, and bear the blame, especially if any neighbors come forward and declare that they saw a great deal of common garden mold mixed with the lime. The catastrophe is then held to be accounted for, though in point of fact dry walls are built in some parts of the country out of irregular shaped stones, that last for ages, without any mortar at all. Parks and game preserves are sometimes so enclosed, and every building, in regard to stability and durability, should be made as independent of it as possible. But as an excluder of weather, rain, wind, and external moisture of all kinds, good mortar or cement is indispensable in housebuilding, and it is maintained by some authorities that modern science, widespread, and loudly belauded as it is, has lost the art of making it of the same durability as some of our old castles and Roman remains prove it to have been in ancient days.

Not a few of there ruins owe their present existence entirely to the perfect *petrifaction* if we may so term it, of the mortar with which they were constructed. Caerphilly Castle, about seven miles from Cardiff uorthward is an instance of this. There a tower knocked out of its perpendicular, by the balls of Cromwell's artillery, overhangs its base, of which only a section remains by about eleven feet, as if it were onc solid stone, and early in the present century the then Marquis of Bute (to whom the property belonged) offered the people of the town of Caerphilly the use of the ruins, merely for the fetching away, to construct some new buildings then in contemplation. But the offer was found to be of no avail. The tenants considered it cheaper to get their stone from the more distaut quarry on the usual terms, than to be at the cost of separating them from each other in the fallen blocks of the old castle close by, on which their pickaxes labored in vain.

But it is not alone as to the integrity of a building that trne and good mortar is necessary, There are other uses it appears which miss it in this country, uses scarcely less important to the votaries of art and its patrons; and a contemporary calls attention to it, in a voice of no uncertain sound, as if very sure of his authority.

In the *St. James Gazette*, of a recent date, treating of the "lost art of fresco painting" in England, the writer draws some conclusions, which seem to us to be a challenge to the building trade, either to refute the hypothesis laid down, or to justify itself for not adopting the Italian method of using lime in the construction of mortar. It is denied that the difference of climate has anything whatever to do with the dampness of our walls, and the gradual fading of our frescoes, and it goes on to account for it thus:—

"In saying 'it is the lime,' the reply may be nearer to the mark. But the remarkable excellence of some of our English limes, such as that, for example, of Southam on the one hand, and the extraordinary variety of the limestones of Casale, of Liguria, of Tortona, and of the Emilian, Tuscan, Roman, and Sicilian provinces on the other, is so great that to speak of the difference between English and Italian lime is to betray ignorance of the essentials of the subject."

The pith of the argument, and the reason of our transferring a large extract from it to our columns, is contained in what follows:—

"There is, however, one point in which there is not only a difference but a contrast between English and Italian walls. It is in the preparation of the lime for use. It is the habit of the English architect to require that the lime shonld be used fresh, almost hot, from slaking. Lime that was yesterday slaked, if not worked up in the course of the day, is by many specifications deemed unfit for use, and ordered to be removed from the ground. The Italian method is the very reverse. There among the first preparations for a new building is the digging of a pit large enough to hold the lime that it is calculated will be required for the building. The proper quantity is at once put in this pit, covered with water, and kept under water during the whole process of the works. What is required for daily use is dug from this pit, in a pasty condition, and wrought up with sand or with pozzuolana as required for use. And the excellence of the plan is apparent. Weeping walls, with streaks of half melted mortar running down their faces, are unknown in Italy. For walling, for roofing, for flooring, for scagliola, or for fresco, the fine close damp paste is at once applicable. The value of the method cannot be doubted by those who try it. From the Roman times, no doubt, it has been in vogue in Italy. And therefore it is that, apart from the effects of earthquakes, the Italian builds for centuries— not for years. So he did fourteen hundred years ago in Britain. Let any one study the masonry of the Roman times—the herring bone brick-work at Rochester, the concrete that is as solid as rock at Corfe—and he will see that with English lime treated in the Italian method the builder need not trouble himself about the climate of England."

It is observable that the writer of this criticism calls British architects—not builders—to account for their assumed indifference to the mode of mixing and applying the mortar to be used under their contracts. But it may be questionnd if any architect's position entitles him to exact any departure from the established method of mixing and applying the mortar to be used, and introducing that of another country, unless the contract he was employed to superintend, made some reference to the subject. If the statement of our contemporary be true our building fraternity have evidently fallen into a bad system of making mortar, and we commend the subject to their serious consideration, as it will cast them so little to apply the remedy if they find themselves in the wrong. The trade will not be revolutionized by it. If the Italian system would stand the contractor five or ten pounds more in additional lime, a codicil to that effect might be tacked on at the foot of the rgreement, nothing more. The architect would then be responsible for the goodness of the material to be applied n that department.

In conclusion the critic takes wider field, and his remarks, written with so firm a pen, are worthy of the attention of the trade:—

"It is not fresco alone that is a 'lost art' when lime is used fresh; it is the same with scagliola. It is the same with 'rough cast.' It is the same in the 'villa architecture' of urban and suburban notoriety and of Georgian taste. Mortar hardly anywhere in England plays its proper part in building. Everywhere it is a sort of temporary plaster; and the use of the more costly cements has been encouraged by the badness of the ordinary mortar.

"It is difficult to avoid drawing the true lesson from this comparison of methods. In one case the results are admirable, permanent —the same to-day that they were 2,000 year ago. In the other they are transient, shifty affected by damp, affected by frost—all that they should not be. The painter of to-day does not, like Michael Angelo or Leonardo de Vinci, unite the skill and practice of the architect with that of graphic art. He takes the wall as it is given him. And the consequence is that he can do nothing with it worthy of his art. The inimitable boldness and freedom of the touch on the fresh surface is denied him. And when his work perishes we laugh at the painter and grumble at the climate, unjustly."

There if a positiveness about these statements which gives them an air of emanating from the writer's own experience. But bold assertions are liable to be met with equally unqualified denials, and it is not unlikely but some equally competent hand may speak up for the British builder, and place the subject before our readers in a light which will remove all reproach from him, as a whole, on the question of the art of making mortar.—*Timber Trades Journal.*

## THE ADVANTAGE OF WHOLESALE MARKETS.

I has lately been a favorite notion with manufacturers that the way to make the most money out of lumber was to ship it from the mill directly to the country yards or to consumers. In cases where mills are remote from any great lumber centre the mill man has no other way to dispose of his product than to ship it by the one railroad, which is probably his only outlet, to retail dealers, contractors, or any body that will buy it. In times of speculative demand a manufacturer thus situated does well enough, but when times are dull and there is only a consumptive demand for lumber, he often finds that the great markets, at ports, or both combined, are able to satisfy the greater portion of the requirement. This is so because in times of slow business and small profits the hand-to mouth ways of buying is the rule, and dealers and contractors prefer to purchase at a market where assortments are full, and they can get just what they want and no more; can have half a dozen sorts loaded into a single car if they choose, with an end load of sash and blinds. This cannot be done where resort is had to a single isolated mill, or even three or a half dozen in a bunch. It is for this reason that in times of depressed trade the tendency is to load the great markets with lumber, while at the same time the smaller points demoralize all values by cutting prices on the surplus that remains at the mills after all has been sold that was possible.

A dealer in this city lateiy remarked that the trouble caused by the Wisconsin mill men in Iowa and Nebraska was not the amount of lumber they sold, but the way it was done. The interior mills, not having an assortment, send out salesmen with instructions to sell certain kinds of stock of which the mill has a surplus, in spite of all competition. When a salesman from Chicago, or any other market, encounters the price made by the Wisconsin drummer, he has no other recourse but to meet them by an equivalent reduction. If the lumber from the interior Wisconsin mills could go to a central market and there enter into the general stock, and be shipped thence to the retail yards, and such were the general system adopted in the disposition of mill product, the sacrifice of profits could be measurably avoided.

This desultory raiding of prices is what is working ruin to the lumber trade, and whittling down margins until in many cases they disappear entirely. The evil has been intensified within the past two or three years by the opening up of new districts, the building of new mills, and the construction of railroads. By such recent enterprises the older channels of distribution have been broken into, and the currents of trade deflected from their original lines. In making these observations we, of course, have particular reference to the white pinetrade of the Northwest, but the yellow pine business of the South could be brought under the same rule. Lumber is a commodity with a commercial value. In its rough and unassorted state as it comes from the log it is not in a merchantable shape for distribution. In order to place it in merchants' stocks it must be graded and piled. The trade at large demands a diversified list of sorts. One mill, or two, or half a dozen in a bunch, cannot always furnish what a widespread demand in city and country requires. For this reason there must be, and will be, concentration of stocks in great markets. After lumber is well assorted, graded and piled, it should have a value commensurate with the outlay for getting it into that shape. But it can never retain its proper value as long as scattered mills are continually raiding prices with particular sorts such as they may have in surplus, and, very likely, can only produce owing to character of timber or capacity of mills. If there could be a unity of purpose among the leading manufacturers, by which markets could be established at convenient points, so that the lumber of the scattered mills could be concentrated and held in general wholesale stock, it would do more to steady prices and secure margins to both producers and dealers than anything else. But as matters are now progressing the best of our pine is being slaughtered and forced into distribution in a turbulent struggle to secure a minimum profit.

Two of the great manufacturing concerns at Menominee, Mich., have initiated piling and distribution from that point. One of them has shipped 4,000,000 to 5,000,000 this season, and has so broken its stocks that it is noticeable that latterly its shipments from that point have greatly decreased, simply by lack of assortments, but if all the mills at the mouth of the Menominee were to pile their lumber, there would be such an accumulation of stocks as to afford a resource for constant shipment. If added to this, the lumber of the scattered mills in the back country, and along the shore, were concentrated at the mouth of the Menominee, a commanding market could be established that would have a controlling influence over transportation, prices and trade distribution.

There should be wholesale markets of assorted and graded stocks at Menominee. Ashland, Duluth, Wausaw, and Eau Claire, to localize the trade of the districts of which they are the centres. In the lower peninsula of Michigan it is difficult to designate a place outside of Detroit, which is already a market, and Saginaw, which is ndding a yard trade to its cargo business, as a point for a wholesale yard market. Grand Rapids, however, should be an eligible place for such a business, where the product of the mills to the northward could be deposited for grading and dissribution. If the requisite rail connection with Lake Michigan mill points were also made, Grand Rapids could become a secondary market for much of the lumber to be distributed eastward and southward. In any event the larger share of the product of Lake Michigan mills must go to the Chicago market for distribution.

It is not claimed that the policy here outlined can be carried into full effect. The lumber business, in its various branches, is inherently opposed to combination or unity of purpose. The manufacturers will probably continue to go on slaughtering their pine and crowding it on the market without reference to the nature or extent of the demand. But the evident truth will still remain, that if the desultory method of scattering stocks could be changed to one of concentration at secondary markets, where distribution could be systematized and prices controlled, it would be much better for all concerned.—*Northwestern Lumberman.*

## CALIFORNIA SKIDWAY.

The San Fncisco *Chronicle* thus describes a skidway that is built in California on which to move logs from the gulches to the mills: "The mill being located, then commences the building of a skid road up the ravine to be first worked out. A road eight or 10 feet wide is made with a grade as uniform as the ground permits. Sometimes the roadway has to be raised eight, 10, or perhaps 15 feet, with long pens filled with earth. After the grade is completed the road is laid with timbers resembling railway ties, two or three feet apart, and sunk into the ground the depth of a stick. At either end the ties or timbers are held in place by braces extending from one to the other, locked in by tenons and corresponding notches. Without these braces the first log coming down the road would be certain to leave it in ruins; with them a road will bear the transportation of logs an entire season, or until the gulch is exhausted of timber. When finished, the road, with its cross timbers just above the ground, resembles a winding stairway, and the dense shade of the overhanging trees gives it a romantic and enchanting appearance.

**Brown's Little Joke.**

"Why, Brown, how short your coat is,' said Jones one day to his friend Brown, who wittily replied: "Yes; but it will be long enough before I get another." Some men spend so much for medicines that neither heal nor help them, that new clothes is with them like angels' visits —few and far between. Internal fevers, weakness of the lungs, shortness of breath and lingering coughs, soon yield to the magic influence of that royal remedy, Dr. R. V. Pierce's "Golden Medical Discovery."

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### ALWAYS HAVE TOOLS HANDY.

It is impossible for a workman to keep every sort of a tool he may need, or have use for, among his kit of tools, if he has anything to do with repairing machinery or keeping it in order. If a machine is worth cleaning up it is worth having a few special tools fitted and kept where they will be handy for no other purpose than for adjusting and changing the parts of the machine. In the simple matter of belting the workman is obliged whenever one of these ripping connections becomes loose, or is torn apart at the lacing and gets wound about on the shaft, to hunt over every department in his chest of tolls for a piece of lacing he once saw, or among a box of nails and screws for a few belt hooks he may be in need of. It is very easy for any one to arrange a spare corner for a few lengths of lacing, belt punch, belt awl, with hooks or any other form of connection, and keep them where they will be ready at a moment's notice, instead of waiting until these simple tools are wanted for immediate use. One of the great advantages of belting over gearing is that a belt is very easily replaced, while a geer wheel would require the shutting down of the whole concern for the greater part of the day, and although a belt can be replaced or taken off and repaired in one tenth of the time, nearly this amount of time is wasted by every one concerned in searching for one of these little articles for making belt holes, or for a side of leather to strip off a length of lace. It is very true that an accident by which a belt gives out, if it can be called an accident, does not occur every day, but it is all the more reason that the necessary tools and material to work with should be protected with as much care as the work they are to assist, for it is during these idle moments that they are likely to get misplaced. In looking after the welfare of any machine, or the amount of production expected from any tool, as mach depends on the means of adjusting as in any part of its operation.—*Ex.*

### THE NEW BRUNSWICK TRADING COMPANY.

The *London Bullionist* says:—The New Brunswick Trading Company (Limited), capital $300,000, in 10,000 preference shares of £10 each, which are to bear at 6 per cent. cumulative dividened, and 20,000 ordinary shares of £10 each, of which 3,000 are to be fully paid up, and 5,000 with £4 paid, are to be issued to the vendors in part payment of the purchase money. At present, only the preference shares are offered for subscription. This company has been organized to take over and develop the business of Messrs. Guy, Bevan & Co., and Messrs. R. A. & J. J. Stewart, of Miramichi, New Brunswick. These businesses have hitherto consisted chiefly in the purchase, manufacture, and shipment of wooden goods, at Miramichi, and the sale of them in the United Kingdom, the Continent, and the Colonies. The company proposes to acquire both businesses as joint concerns—the mills, plant stock, and materials, with their valuable freehold and selected leasehold lands, consisting of about 110,000 acres, the mortage (which carries with it certain advantages conductive to economy in working), advances on securities of ascertained value owned by both firms, together with the business and goodwill. The price of the properties, including the plant, steam tug, scows, etc., amounts to about £60,000, subject to adjustment of fluctuating and current assets, from the 30th, April, 1885, (from which date the transfer takes place.

The prospectus anticipates that by working the two businesses to be acquired as one concern, there will be a saving of expense and a large additional profit, and that after paying the fixed dividend on the preference shares, there will remain a handsome dividend on the ordinary shares. A few points which are worth the consideration of intending investors are these:—First, the directors of the company are all men possessing large experience in the trade which the company is to engage, and that the amalgamation of the two businesses will cause a large saving in expenses, besides an increase of profit from the cessation of opposition. The business to be acquired is undoubtedly an old one, and the accountants' reports which accompany the prospectus point to a long course of profitable trading. The company will take over nothing but actual assets, for which the vendors are paid in shares, which they are bound to hold for five years.

### HALL WORKS.

*From the North Ontario Reformer, August 28th.*

The demand for New Model Threshers, Engines and Horse Powers, is so great that the Hall Works are working over time with 140 men to meet it. The works open at half past six, a. m., and close at seven, p.m., stopping only half an hour for dinner. If it were not for the admirable system adopted by the present management, even this extra time would not meet the demand for the New Model. We are informed that orders for the New Traction are being received by telegraph. We have no doubt but that when the great superiority of the engine is known, a still further increase on the force will be required.

Oshawa cannot but be benefitted by the introduction of so very important an improvement in the use of steam power.

### BUSINESS REVIVING.

"The way to resume is to resume," Horace Greeley said. It may have been applicable to the relations of the Government to the resumption of specie payments, but is not entirely so with respect to the resumption of business activity. Depression cannot be driven away with the breath of the nostrils or routed by the marshalling of words It will take its departure only when the conditions which induced it shall have passed away. While saying, "Lo, prosperous times are at hand," will not have much effect in accelerating their coming, the words have a cheerful, encouraging sound which raise the spirits and impart brightness to the countenance. A good many times in the two or three years the cry has been raised that the skies were brightening, and the clouds have not rolled by; nevertheless the words have not been without a good effect upon ourselves. "Hope springs eternal in the human breast." The words of encouragement are again being spoken On every side is heard the murmuring sounds of a rising tide, say those whose ears are attuned to the sounds and eyes sharpened to the signs of increasing activity in the business hive. A well-informed exchange says, "There is no more room for doubt that the general business situation shows signs of improvement. There are evidences on every hand to prove that tide of a new prosperity has set this way. For some weeks there has been a correspondence in reports from all quarters telling of improvements in trade indications which could not be without its significance. The distinctively trade journals bear witness to the reality of the change. *Bradstreet's*, one of the most careful of them, notices in a recent issue a better business feeling and a larger volume of trade in almost every important trade centre in the country * * * * We do not believe it to be premature to congratulate the public because the worst is over. It is more than probable that the whole country is about to experience a business revival." What signs of better times are observable in the lumber trade? There has been felt a greater demand and seen an advance in prices within the month. The advance in prices has been imputed to the effect of the strike on the Saginaw river, but that is not sufficient to account for it. Say the stoppage of the mills curtails the output 200,000,000 feet out of 8,000,000,000 feet, the product of the Northwest including Michigan, would not be sufficient to cause an advance of 50 cents to $1 per M on a market that was devoid of activity, or as stagnant as at the opening of the season. There is not only a conviction abroad that the supply of lumber is not going to be as abundant as for some years past, but the quickening of a demand is felt. Read what Dr. Ward says of pine stumpage in Manistee and think of his confidence in refusing $17 per M for logs. The doctor is an enthusiast, owns the best stock in the world, but his assurance in demanding $18.50 per M for logs indicates his belief that good pine is as good as gold and there is money in it. Now, there is a good deal of pine in the country, and if there were not the motions of a revival being felt there would not be the desire to get hold of pine and buy stock that is manifested all the board. This quickening has awakened the speculators in the stock exchange and they are staking their millions in railroads as they have not done for two years past. There will probably not be a "boom" this year, but its last half will be better than the first. Confidence is felt that there will be good crops. The wheat crop will be something less than last year, corn and oats promise to yield largely, and money is abundant and obtainable on reasonable terms for legitimate enterprises. There has been a good deal of building going on in spite of the dullness, and the *Pioneer Press* notes that in St. Paul, "the last months of the year 1885 will see more building begun than was dreamed of in the beginning of the year," and the same sentiment prevails in other northwestern towns. The west cannot be prosperous without the east feeling the effect, and it is being felt. There are causes of discouragement on the Saginaw river in the labor troubles. But the outlook now is for an adjustment very soon which will enable the mills to resume operations. When they do matters will brighten very much and we shall share in the general quickening of activity. The signs may be deceptive, but taking a cheerful view of the situation cannot well have an ill effect.—*Lumberman's Gazette*

### HOW TO SUCCEED.

Young men starting in life, says the *Journal of Progress*, should not forget that a machine is made of various delicately interdependent parts. Enthusiasm is one element of success. Enterprise another. Integrity of purpose a third. Singleness of purpose a fourth. Pluck a fifth. Clearsighted knowledge of the practical requirements of the age should be possessed. The thousands of failures every year would be fewer in number if those who enter the ranks of trade and manufacture fully comprehended all that is demanded of them. The world and society is severe, exacting and unrelenting masters. Out of the 12,000 failures last year, 10,000 were failures of those who had less than $5,000. But want of capital is only one cause of failures. The greatest successes have been those who had scarcely any capital. Vanderbilt, the elder, began life of a canal boatman. Jay Gould as the head of a tannery. True greatness comes from humble beginnings. The head and heart must be right. The right kind of purpose must be first formed.


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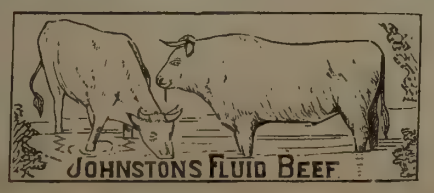


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The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., SEPT. 15, 1885.*

THE *Belleville Intelligencer* says that the Rathbun Company, through their Kingston agency, have forwarded to Calgary, N. W. T., the material for a house, ready to be set up.

THE Rathbun Company have been awarded the contract of furnishing the telegraph poles, about 200 in number, for the Amherst Island Telegraph Company.

A PROMINENT American lumberman had his coat of arms painted on the panels of his carriage, with the Latin motto "Vidi," which by interpertation is "I saw."

MR. IRVINE, superintendent of the sash and door factory, at Deseronto, finds himself exceedingly busy filling the numerous orders sent into that establishment. The domestic market during the past season has been very good and has kept all departments more than busy.—*Tribune.*

LUIS WARD, secretary of the Pere Marquette Boom Co., at Ludington, states that the quantity of logs that will be brought down the Pere Marquette river this season will not exceed 80,000,000 feet, against 130,000,000 feet for last season. The curtailment policy has evidently been made practical on the Pere Marquette.

THE *Lumber World* for September says:—The Duluth Lumber Co. shipped by car to the southwest 4,250,000 feet of lumber during July. The company has sold to the Port Arthur Lumber Company 1,000,000 feet, which is all to be shipped at once. One cargo has already been sent forward, and two more will be forwarded next week on the City of Montreal and her consort. The two boats will take about 600,000 feet. Although the price of lumber is little firmer and better than a few weeks ago, it is still below the cost of production.

THE signs of preparation foretell a pretty lively season in the woods the coming winter, and it is safe to calculate upon a considerable increase in operations over last year. Supplies will be about the same in price as last year, but there is a probability that wages will be somewhat higher. If the demand for lumber keeps steady and the stock of logs shall be used up as closely as now seems likely to be the case, operations in the woods will begin early and be of quite liberal dimensions, but there is little danger of a repetition of the glut of 1882-3.—*Lumberman's Gazette.*

MEN hired by Messrs. Peter McLaren and Boyd Caldwell for work at their shanties during the winter, pass over the Kingston & Pembroke Railroad daily.

THE Messrs. Gilmour are erecting a new boom at a cost of $13,000 at the Cascades, up the Gatineau. The work is being carried on under the superintendence of Mr. Bingham.

MR. PAUL LAMOTHE, ship builder, of Montreal, was awarded the contract for building the new tow boat for the Upper Ottawa Towing Company, to take the place of the steamer C. O'Kello, which was burned some weeks ago She is to be ready for the opening of navigation next year.

THE *Timber Trades Journal* of Aug. 29th says:—Intelligence received at Paris states that forest fires have again broken out in the vicinity of Bona, in Algeria, an area of ten kilos being in flames. Fears are entertained that the conflagration will extend over the entire forest region.

A GREAT trouble in drying lumber quickly has been the tendency to form a hard shell on the outer surface before the interior saps have been vaporized, this hard shell preventing the escape of the sap. To overcome this difficulty, a new lumber drier heats the wood to a temperature of 225 to 250 degrees, where it is allowed to remain two or three hours, when steam is shut off and the temperature of the wood is reduced to about 100 degrees by cold water or cold air. It is then reheated and cooled as before, the operation being repeated until the lumber is thoroughly seasoned. We believe this is a good idea.—*Wood-Worker, Indianapolis.*

THE Minneapolis *Wood and Iron*, commenting on the lumber trade situation there, says:—Since our last report the shipments from Minneapolis have averaged over 50 car loads per day. Logs are nearly all out of the streams, those remaining being confined to the St. Croix. No important changes have been made in the list; cull dimension was advanced from $7 to $8, and fourth siding went the other way from $17 to $15. Considering the general condition of the trade throughout the country some surprise has been shown that dealers have not advanced prices all along the line, but the dealers have no special cause for complaint over ruling quotations and the demand has shown no falling off.

THE *Wood Worker* mentions a new process for toughening timber, by which white wood can be made so rough as to require a cold chisel to split it. This result is reached by steaming timber and submitting it to end pressure—technically upsetting it—thus compressing the cells and fibres into one compact mass. It is the opinion of those who have experimented with the process, that wood can be compressed seventy-five per cent, and that the timber which is now considered unfit for use in such work as carriage building, could be made valuable by this means, and more especially since the rapid consumption of our best ash and hickory will sooner or later render some substitute necessary.

## A CARGO FLEET.

The Duluth *Herald* chronicles the departure of the largest fleet that ever left that harbor for Chicago. It had over a million feet of lumber that had been sold under inspection. The *Herald* continuing says:—"The cent es from which Chicago formerly drew its immense supplies are not as able as they were to meet the demands. Although there is pine enough in Michigan for a great many years to come, it is harder to get at and costs more. Chicago dealers will soon be obliged to look elsewhere for there supplies, and the most convenient new market they can find is at Duluth. Lumber is cheap, comparatively speaking, and the rates are low. During the season of navigation there would be no difficulty in getting immense quantities by way of the lake, and the various railroad routes we now have to Chicago guarantee competition rates by rail."

## WOOD-WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the U. S. Patent Office, August 25th, 1885, is specially reported by Franklin H. Hough, solicitor of American and foreign patents, 925 F. Street, N. W., Washington, D. C.:

324,487.—Lathe, wood turning—W. A. Kettenring, Defiance, Ohio.

324,840.—Log unloader—W. E. Hill, Kalamazoo, Mich.

325,159—Saw, hand—G. N. Clemson, Middleton, N. Y.

325,052.—Saw set—H. M. Chamberlain, Waltham Mass.

325,101.—Saw set—L. F. Markham, Grand Rapids, Mich.

325,080.—Saw sets, feed mechanism for—H. H. Hitchcock, Detroit, Mich.

325,035.—Saw setting machine—J. H. C. Winston, Lynchburg, Va.

324,925.—Saw teeth, securing diamonds in—A. H. Lucas, Allegheny, Pa.

324,842.—Sawing machine, scroll—H. L. Caro, Mich.

PATENTS ISSUED SEPT. 1.

325,364.—Saw, chain—W. S. Sloope, Minerva, Ohio.

325,629.—Saw mill, band—L. T. Pyott, Philadelphia, Pa.

325,507.—Saw mill dog—A. Delaney & J. M. Bond, Richmond, Va.

325,295.—Saw mill set works, indicator for—A. J. West, Aberdeen, Wash. Tr.

325,467.—Saw swaging device—E. Williamson, Bay City, Mich.

325,571.—Spokeshave—C. W. Smith, Westerly, R. I.

325,483.—Wood handling machine—J. W. Blaisdell, Brooklyn, N. Y.

325,527.—Wood polishing machine—F. Gale, Muskegon, Mich.

325,279.—Wood working machine—H. H. Sheip, Philadelphia, Mich.

PATENTS ISSUED SEPT. 8.

326,005.—Chuck, lathe—C. Wilson, Caro, Mich.

325,831.—Lathe—J. O. Haas, Hepler, Pa.

326,000.—Lathe—F. A. Wellman, Owosso, Mich.

325,029.—Saw—Bucke & Moses, Rochester, N. Y.

325,727—Saw mill, circular—A. Brogden, Oshkosh, Wis.

325,693—Shingle sawing machine—W. J. Perkins, Grand Rapids, Mich.

## FOREST FIRES.

A special correspondent of the Montreal *Herald* writing from Port Moody, B.C., gives the following account of forest fires in that locality:—"Forest fires have been making havoc with that same railway these last few days. The spaces on each side of the track have never been properly cleared of the felled timber. Consequently the fences for many miles at this end of the road have been in great part consumed, and will have to be renewed. Not only this, but many bridges, cutouts and even ties have been badly damaged, although large gangs of men have been continually at work in their efforts to protect them from the fire.

These great forest fires on this heavily timbered coast are something frightful yet grand to the view. Unfortunately we have them every summer; but this year, owing to the unually long drought, they are being unprecedently voilent and destructive. No one ever knows, or will ever acknowledge that he knows, how these fiery scourges orginate. In this place (Port Moody) for instance, we, one day, see a smoke rising in some direction. This is reported in other quarters. Thus, in a day or two, the whole place is surrounded by a belt of fire. The appearance thus produced in the night time is grand and beautiful in the highest degree, and throws the most elaborately prepared artificial illuminations and fireworks literally into the shade. The hills which make the circumference of the great natural amphitheatre which surrounds Port Moody, are clothed and crowned with gigantic forests of the pine tribe. Looking around this amphitheatre after nightfall, we see thousands of torches—lanthorns—lamps—what shall I call them?—burning with a steady light; and these will continue to burn until extinguished by a heavy rain. Then, frequently there springs up, now here, now there, what may be called a prolonged and dazzling flash, as some new victim in the shape of a gigantic cedar or pine is attacked by the fire, and the flames rush with a loud roar, up to its very topmost spire, probably over a hundred feet high. In a minute or two its resinous foliage is quite consumed, and its trunk becomes another great permanent torch. After a few days this beautiful sight ceases to be visible. The air becomes so impregnated with smoke that nothing can be seen—sometimes not even at two hundred yards distance and at noonday. But we can hear the work of destruction going furiously on—the war of the flames and the crash and thunder of falling trees, occurring like minute guns. It is the frequency of these falling trees which makes it dangerous for any one to approach near to these fires. Some six men have been employed, for the last few days, in clearing off immense trees from two miles of the road between New Westminster and Port Moody, to enable stage and mail coaches to pass; and no one can tell how much longer their services may be required. It is very sad to see the enormous destruction of valuable timber caused by those forest fires; but the people of no part of this Dominion ever yet have seemed to take a proper view of the matter. Of course, there have been many exceptions; but the mass are indifferent.

## ALASKA FORESTS.

Alaska forests contain enough timber to supply the world. The forests of pine, spruce, fir and hemlock, cover every island of the archipelago, and a goodly portion of the mainland. The trees are straight and tall and grow close together. The only saw mill at present in operation is at Douglas Island, and so far there has not been a cord of timber cut for shipment. The trees as a rule do not always cut up into good sized boards. For fuel, however, the wood is excellent, and much of it is available for building purposes. There is little decorative wood, although the yellow pine is richly covered and might be used to advantage in interior work. Alaska spruce is an excellent variety, and often measures five feet in diameter. It is considered the best spruce in the world and the supply is very abundant. In the interior of the country timber is of much heavier growth than near the coast and on the islands. Regarding the hemlock, there is a large supply, and the bark compares favorably with that of all the eastern trees used in tanning establishments.

## LUMBER AT AUCTION.

The New York *Times* of Sept. 2nd says:—The first public sale of lumber in the yards of the New York Lumber Auction Company, on the North River, foot of West Twenty-third street, occurred yesterday morning. The lumber was sold in lots of 5,000 feet and over, and the sales aggregated 5,000 feet. The prices obtained are reported as averaging up to the usual wholesale market prices. For instance, whitewood, firsts and seconds, brought $25 to $30; oak, quartered, $57.50; Kentucky walnut, $85; 2 inch ash, $37; boxwood culls, $14, and first and seconds, $21; roofing boards, $16.50; box pine, $12. No other woods were sold.

Auction lumber sales are an established feature of the business in Liverpool, London, and the Continent, and they establish the ruling prices in the market. But the plan has never before been tried in this country, and there is much interest as to its results upon the market here. The regular dealers are outspoken against the scheme, some of them fearing that it will reduce prices and cut into their business.

"The idea of the auction sales," explained Mr. T. S. Atchison, manager of the yards, "is to bring the consignor and consumer closer together. The advantage to the consignor is in quickening sales, saving the profits which are now eaten up by car service and interest, resulting from the delay in disposing of the cargo or carload in small lots, sometimes requiring six months. We will sell in cargoes to dealers and large manufacturing consumers

# ST. CATHARINES SAW WORKS!

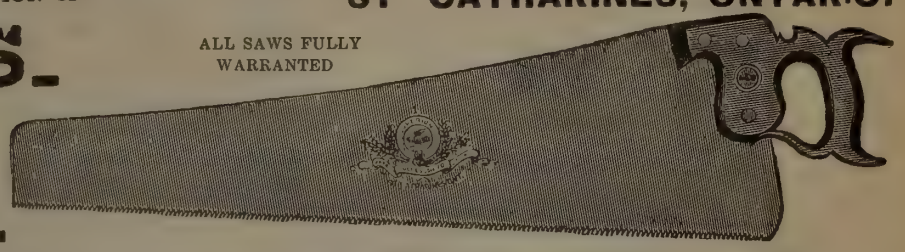
## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

## SAWS.

ST CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED



Sole Manufacturers for the Dominion of Canada of the

## "SIMONDS" SAWS.

☞*All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*


of lumber who now make their own contracts for months ahead with the lumber manufacturer. Our Commission of 10 per cent. covers all expenses on consignments, except hauling, piling, and the ordinary charges for inspection, and our company assumes all responsibility for purchasers. I do not think the auction will materially effect the yard sales, as well sell only large lots, and the yard sales are in comparatively small lots at retail prices."

The lots up for sale yesterday were consignments from different parts of the country. Several large manufacturing consumers attended the sale, some from out of town, but principally New York and Brooklyn were represented Two sales a month will be held until the 1st of November, when they will be made tri-monthly. De Witt C. Wheeler is president of the company, and Latimer E. Jones, the wholesale lumber dealer at No. 116 West Twenty-third street, is the secretary and treasurer.

### A NEW TRACTION ENGINE.

Mr. Ryan and Mr. F. W. Glen, M.P., visited Eaton, N. Y., last week, for the purpose of making final arrangements with Messrs. Wood, Taber & Morse, for the control of their new Traction Engine in Canada, and we are pleased to say that in the interest of Oshawa they succeeded. Messrs. Wood, Taber & Morse were the first manufacturers in the United States to build Portable Engines on wheels, some 35 years ago, and have turned out more of this class of engines than any other firm there since their first introduction. Their engine has been the model for nearly every large builder in the United States and Canada. The first Oshawa Engine was purchased from them. An immense sum of money has been expended upon experiments with Traction Engines during the past ten years, and thousands of them, such as they were, have been sold, but Mr. Glen has refused to recommend any heretofore introduced to the customers of the Hall Works. Messrs. Wood, Taber & Morse have spent ten years in perfecting the New Traction, and have now for the first time offered it to the public as a desirable and complete machine. It was put in operation for Messers. Ryan and Glen, and a series of *severe* tests applied. It drew up a hill, the grade of which was 1.100 feet to the mile, five engines which weighed together 11 tons, stopped in the middle of the hill and then went on. Four holes were dug 16 inches deep under each road wheel and the engine started, and without any difficulty came out of the holes. The hind wheels were backed off the road side so that they were at least 2½ feet lower than the front wheels. A scantling 6 inches square was then placed before the front wheels, and when steam was let on the engine at once passed up over the scantling. One of these engines travelled 34 miles over as hilly a road as the base line from Oshawa to Bowmanville in one day, drew a water and coal waggon, and only consumed half a ton of steam coal. A 12-horse power traction of this kind can draw from Oshawa Station to the town 25 tons as fast as a team walks with two tons. Can easily draw ten tons from the port to the town. Heretofore the traction machinery has been applied to the rear wheels of the engine only. Messrs. Wood, Taber & Morse are the FIRST IN THE WORLD TO SUCCESSFULLY APPLY IT TOALL FOUR WHEELS. The engine can be turned around by the driver in less space than is required to turn a farm waggon with a team of horses, goes backward as easily as forward—can bring down a sharp grade safely as heavy a load as it can take up. Its value to the thresherman can hardly be over-estimated. At present he buys an engine and thresher, two teams of horses and employs two men and gladly works for $12 per day. If he could be employed all the year he would be pleased to work for less. Now he can dispense with the horses and harness during the threshing season and at its close he is ready to do any class of heavy teaming—for instance, he can draw four loads of coal of ten tons each from the harbor to the town which at 30 cents per ton is $12. It costs 60 cents to team it at present. He requires no barn, a shed without a floor ten feet high and eight feet wide is all he needs. In place of oats or hay he has a pile of coal or wood. Carefully used the engine will last for ten years, about as long as the average team of horses can endure to do *constant* and heavy work. No one can forsee the very great change that this wonderful advance in Traction Engines will create in transporting very heavy freight short distances. It will drive the horse from the plough at an early day, in fact there is no end to the ways in which it can be made to do the heavy labor which is now performed by horses. Mr. Glen informs us that Messrs. Wood, Tabor & Morse had 112 Portable Engines painted and ready for shipment in their shops and yards besides those in process of construction. They were shipped to all parts of the United States, South America and Mexico. The New Traction will be shown at the Toronto Industrial Exhibition.—*Farmer, Aug. 21st.*

THE Dominion Government has decided to send a collection of lumber and minerals to the Colonial Exhibition in London, in addition to the collection exhibited at Antwept. Prof. Selwyn has been entrusted with the task of selecting the mineral exhibit, and a practical man will be chosen to supervise the lumber collection.


The great diaphoretic and anodyne, for colds, fevers and inflammatory attacks, is Dr. Pierce's Compound Extract of Smart-Weed; also cures colic, cramps, cholera morbus, diarrhœa and dysentery, or bloody-flux. Only 50 cents.

## Axes & Cross-Cut Saws.

CANADIAN AXES.
Both inlaid and overlaid steels, 10 patterns, from $7.00 upwards per dozen.

AMERICAN AXES.
Both inlaid and overlaid steels, eight patterns, from $10.00 upwards per dozen.

SILVER STEEL LANCE-TOOTH CROSS-CUT SAWS.
Warranted to be good temper or will be replaced. Special three square and extra fine cut flat files for these saws.

BLOCKING AND BROAD AXES
Of extra shape and quality. Samples of axes and saws sent to any address on approval and for selection.

## Geo. Stethem

Importer of Heavy and Shelf Hardware. Sole Agent for the B-A-Any Axe. 6617

A FULL LINE of all Size Single and Double Belting constantly in stock.

☞All ORDERS Filled same days as received.

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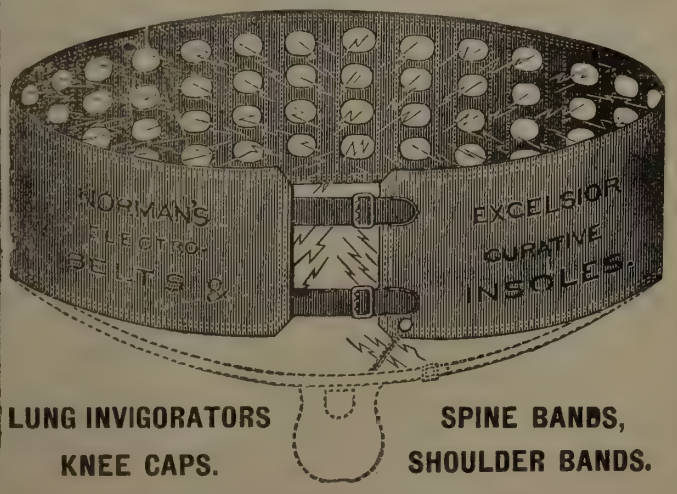
## MONTREAL, QUE.

# Norman's Electro-Curative Belt!

*4 QUEEN ST., EAST, TORONTO.*




LUNG INVIGORATORS
KNEE CAPS.
SPINE BANDS,
SHOULDER BANDS.

This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

## A. NORMAN, Medical Electrician

4 QUEN STREET EAST, TORONTO.

*N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination*

## THE UPPER MISSISSIPPI DISTRICT.

MINNEAPOLIS, MINN., August 25.—The local lumberman's exchange met last evening. and affirmed the action of the meeting held here on Friday of last week and advanced the price of common lumber, dimension, and E and D stock $1, as agreed, but declined to advance the price of fencing. This action was reached only because fencing is already higher at Minneapolis that at almost any other point, At Winona, La Crosse, Dubuque, Fort Madison, and Clinto No. 1 fencing is quoted at $15, and at Burlington $14; Eau Claire and Necedah at $12.50, and Minneapolis at $16. Second fencing here is quoted at $12, and at lower river points at 12.50. The claim is made, however, that there is about $1 difference in the grade. The secretary of the exchange was directed to notify the exchanges in other cities of the action regarding fencing, and the reason therefor. And just how generally it will be adopted remains to be seen, since one or two firms are reported not to have changed their lists— to all their customers, at least—after the May meeting. These were small dealers.

The advent of the Chicago, Burlington and Quincy I think played a part in bringing about the advance in the list. Representatives of the road busied themselves for a time going up and down the river seeking to make the most favorable contract possible for something over 20,000,000 feet of timbers, chiefly 6 x 6 x16. Mr. Joyce, of Lyons, made a bid of $16 per thousand at the mill, and the La Crosse manufacturers refused to bid altogether. So did the firms at Winona. Mr. Weyerhaeuser took in the order, so he says, at $16.50. Possibly the item of transportation figured in the ultimate sale. The new line is destined to use a great deal of lumber, both in bridges and trestle work. It traverses the east bank of the Missi.sippi pretty faithfully and encounters a succession of streams and run ways, so that the proportion of bridge material will be much larger than used in the building of prairie roads.

The intimate relationship existing between the Manitoba and the Burlington received further proof at the annual meeting of the Manitoba, which was held on Friday, and at which Mr. Henry D. Minot, who is largely interested, as is his father, in the Burlington road, was elected a director in the Manitoba. E. P. Reynolds & Co., of Rock Island, are to build all the road below the mouth of the Wisconsin and D. C. Shepherd & Co., of St. Paul, all north of that except 30 miles opposite Winona. The line is to be completed within a year and word will be prosecuted all winter.

T. B. Walker has about completed arrangements for the building of another saw mill in the mill in the Red river valley, this time at Grand Forks. The project has been considered for a year, but Mr. Walker thinks it will go through now. He is having some of the logs sawed at Mr. Mudgett's mill, a single circular mill, at the present time, and is running his Crookston mill to its full capacity.

The Manitoba Company has a crew of engineers in the field surveying a line southeast from Crookston below Leech lake. This is the third company which has penetrated that region and the prospects are that the great pine forest north of the Northern Pacific in Minnesota will very soon be traversed by one or more railroads. Of course this means to the lumbermen better facilities for getting into the woods and in handling supplies and the multiplication of railroad saw mills. But it has a wider significance. It will be remembered that at the last session of the legislature an act was passed transferring the grants of land originally made to the Duluth & Winnipeg to the Brainerd & Northern, provided that the Duluth & Winnipeg should not build its line by August of next year. The grant consists of 2,000,000 acres of land lying in the pine region north of the Northern Pacific and valued at $2,000,000 or $3,000,000. While it was claimed by Mr. Kindred, the prime mover in the Brainerd & Northern, that the new road was to be an independent one with its southern terminus at Brainerd, the general impression prevailed that it was to be a feeder of the Northern Pacific and that the latter road was to in this way invade Manitoba's territory in the Red River valley. The line as surveyed extends to Red Lake Falls. This invasion the Manitoba threatens to resent by building the Duluth & Winnipeg, and practically paralleling the Northern Pacific from Crookston to Duluth, and by an extension of its Grand Forks and Devil's Lake division to some point on the Missouri river. A second object is aimed at in the project. The Manitoba is now compelled to carry such business as is designed for Duluth by a circuitous route *via* St. Cloud and Hinckley from the Red River valley. The new line will give it a direct route and place it in a position where it can at least defend itself against the Northern Pacific. There is every indication that the great northern lumber region is the next battle ground of railroads in this state and that the great domain above the Northern Pacific, much of which is desirable agricultural land, is about to be made accessible for population.

Heath Brothers, who have for a number of years operated a saw mill near Pine City, have assigned with liabilities of about $13 000 without assets enough to pay it.

It is announced here that the Chicago, Milwaukee & St. Paul will build its line Kansas City from Ottumwa, Iowa, southwest and that the work will be undertaken very early next spring. This step is in retaliation for the invasion of its territory in the Northwest by the Burlington—and so the war goes on.

The saw mills are still pegging away at the logs and will cut up about 50,000,000 feet this month. Opinions are divided about the number of logs yet in the pond. John De Laittre places it at 145,000,000 and Mr. Farnham at 125,000,000. It is admitted now that from 20,000,000 to 40,000,000 feet will be carried over under the most favorable circumstances, but all depends upon what shrinkage has occurred in the old logs. Logs have been coming in freely which were cut five years ago and the owners now entertain the hope of being able to determine just how much their long carried wood scale has shrunk in the process of time.

J. H. Upham, of Duluth, was the successful bidder at the assignee's sale of the mill property of the Paige-Sexsmith Lumber company on Tuesday. He got it for $33,500, whereas it is said that the first cost was about $150,000. There was a number of prominent lumbermen at the sale and much interest was manifested. Bidding started at $25,000. It is believed Upham bought the property as a speculation.—*Northwestern Lumberman.*

## SYMPTOMS OF IMPROVEMENT.

The *Timber Trades Journal* says:—In our last number we referred to the turning point in trade as something not likely to be very remote, if it had not already arrived, and we pointed out from the public returns the evidence that no improvement was yet visible in the official documents of the national business. Nevertheless the probability of a better state of things being near at hand was distinctly intimated, and in the week that has since passed that view has been visibly sustained.

In our impression of June 20th we recorded the sale of a cargo of hewn pitch pine ex Medbor, from Charleston of good dimensions, at Liverpool, which fetched under the hammer on an average very little over a shilling per cubic foot, the highest price obtained for 60 ft. long and upwards by 18 and 19 inch being 1s. 1½d. per foot, or 66s. 6d. per load, while most of the cargo, including pieces 50 to 58 feet long by 15 in. square, brought only 1s. per foot. It is true the reporter qualifies the circumstance by stating that "the quality, like the price was also low." At the same sale the highest price that could be got for St. John and Halifax spruce, of best sizes and lengths, was £6 5s. to £7 2s. 6d. But even as late as July 25th pitch pine of fine dimensions and good quality, say 70 feet long, was to be had for 13½d. per foot, though choice lots went higher, and at the same time three cargoes of spruce were sold, only one of which averaged over £6 (£6 4s. 6d.)

Let us contrast this with the Liverpool sales reported in our last number, where nothing less than £6 15s. was paid for regulars St. John spruce 3x9, and as high as £7 15s. for 3x11 of good lengths 12 ft. and upwards. This sale may be regarded as testifying to an advance of at least 10s. a standard on spruce, and it has occurred in the face of a great many timber ships arriving; more, in fact, by some 14 than came into London the same week. No sales of hewn pitch pine took place, but sawn, which has sometimes gone at lower prices than the large hewn timber, was evidently on firm ground, as most of it was withdrawn in expectation of doing better later on, though some of it fetched 18d. per foot cube.

Liverpool being the chief emporium of spruce and pitch pine, on account of its readiness of access from the Atlantic and its great trade with the manufacturing districts, is naturally looked to for the tendency of the market in those goods, and their public sales being of cargoes, or large parcels, of one description of timber, they are more easily followed and reckoned up, if we may use the term, than the intermingled variety of specifications from all parts of the world which crowd our London catalogues.

It is true that one swallow does not make a summer, and a considerable influx of goods of one kind soon checks a rising demand. The anxiety to realize when many competitors are at our heels may bring down spruce again, and as a matter of fact the sale of Messrs. Mackay which we report this week; hardly seems to show a slight weakness in prices. The captain who knows pretty nearly how many ships were on their way, or loading with the same stuff for the same port, if he happens to get a quick passage, and is beforehand with the most of them, will like to avail himself of his opportunity, and make his market before their arrival. This principle pervades every trade, and prices are brought down by those who must realize as soon as possible, in order to meet their own engagements. Otherwise there is nothing to disturb the trade in the fact of the importation continuing its activity. There is still a considerable quantity of timber goods in arrear of last year's import, and a general impression prevail that it will not be effaced before the close of the season—that, in fact, there is no disposition abroad to load our markets too heavily. It is even thought that the shippers cannot do it now, even if they were so inclined, without damaging their own cause, and the risk of losing more than could be gained by it.

Our Stockholm correspondent considers that the autumn shipments from Sweden will be very moderate, though by the statistical returns up to the end of June it doet not appear that the export of deal and timber from Sweden was by any means a small one in comparison with other years. It was only a trifle below that of last year and 1883; but it was about 30,000 standards more than in 1882, and considerably more than double that of 1881, as thus: The export of deals this year was 283,405 standards; that of 1881, 109,158 standards; last year to same date the export of deals was 294,094 standards; the difference in excess of the present was not four per cent., and the floating down of goods to the saw mills on many of the principal rivers of Sweden is said to be nearly over. There is, doubtless, plenty of stock in some hands, but on the whole the supply is said to be by no means excessive.

The legitimate trade of this country can still take its regular supplies; and, counting on its customary outlets, Sweden might find a destination for all she desires to ship without pushing the goods on reluctant markets. But it happens, unfortunately, that speculation is suspended for a while in France. The cholera epidemic has damped all the ardour of buyers by its reappearance at Marseilles, and where a great trade was expected to be done no orders it seems can be obtained. This will be some disadvantage to the British importers, because a good deal that was intended for France will possibly be landed here instead. On the other hand, both in Sweden and Finland the stock is said to be lower than usual, and shipments are likely to be very moderate for the rest of the season.

In no article of merchandise has the depression in trade been made more manifest than in that of *copper*, a metal of which money is coined, and which might therefore be expected to maintain its ground better than less valuable productions. This time last year it was worth £55 per ton, and the year before it was above £63 at this period. Now it is below £43 per ton, and the market not firm at that. The imports of North American copper have been more than double what they were last year at this time, and that year sent us more than double the quantity of 1882. The recent fall is said to have shut up several of the smaller copper mines in the Lake Superior district. But the larger can still work without loss by their greater facilities in machinery, and perhaps richer veins of ore. They are, however, anxiously looking for a revival of trade to restore prices to something more like a living profit than they admit of now.

Trade seems to have been gradually bowed down for the last two years, and to have almost lost all chance of again reasserting itself with its ancient vigor. Everywhere production is overloading it, and it must quail still further under the accumulation, unless some check can be found to restrain production within reasonable bounds. It is assumed that when it no longer pays to produce an article of trade it will no longer be prepared for market till a better price can be obtained for it. This is true in theory, but it not always so in practice. A going concern which turns a great deal of money dies hard, else how does it happen that so many important manufactories stop for large sums of money and with very insignificant assets? They must have long been insolvent, but still staving off the catastrophe as long as possible. When all chance of redeeming their losses has faded away, then step in the lawyer and his satellites, and the property and plant are sacrificed to the still further injury of the trade. Another adventurer with some capital is found to take the works at a reduced rent, and competition and heavy expenses perhaps beat him out of the market at last in the same way as his predecessors in the business were evicted; and by this fatality of working for nothing, as it were, the trade is damaged through all its branches till nobody can without great difficulty and some good luck make a living by it.

Thus we see, when a great depression has prevailed over trade for any considerable time, how many tangled obligations have to be unravelled before it can recover itself and resume its ancient enterprise and power.

But to that desirable end there must, sooner or later, be a beginning, and in the timber trade at least the fact of a palpable improvement in the spruce sales and a firmer tone in those of Southern pine may fairly be regarded as affording a reasonable hope that we are once more on the road to the good time coming, though of that even now we may entertain some doubt as to its very close proximity.

## $100, TRACTION ENGINE PRIZE.

*From the Ontario Reformer, August 28th.*

We are informed that the manufacturers of Traction Engines, except the proprietors of the Hall Works have declined to compete for the $100 prize offered by Capt. McMaster, Vice President of Toronto industrial Association, and that therefore the Association are about to withdraw the prize.

The proprietors of the Joseph Hall Machine Works promptly informed the Secretary of the Association that they would compete for the prize, and have gone to very considerable expense to do so. We cannot see the justice of withdrawing the prize. In some lines of cattle only one exhibitor has been present, and yet the prize was not withdrawn. The fact that the manufacturers of So CALLED TRACTION ENGINES do not feel inclined to meet the New Traction in a fair contest, under the direction of competent and disinterested judges, is no reason for withdrawing the prize. The Hall works Engine will however, be on hand at the exhibition, ready to submit to any tests that may be demanded.

Mr. Glen, M. P., General Manager of the Hall Works, informs us that they will couple a Ten Horse Rubicon Traction Engine to any 16 Horse Power Traction Engine made in Canada. and if the 10 Horse Rubican cannot draw the 16 Horse of any Canadian make backwards, they will abandon their claim to the $100 prize.

A FIRE at Barrow-in-Furness destroyed the works of the Barrow ship building company, causing a loss of £100,000.

# Chips.

THE loss by the fire on August 19th at Shaw Bros. & Cassils' tannery, at Roxton Falls, Que., is estimated at about forty thousand dollars. There is only some four thousand dollars of insurance.

THE Saginaw valley strike is weaking, there are now 40 mills resumed at the East Saginaw end of the river, 28 at the old terms, and the remainder at ten hours, with a proportionate reduction in pay.

THE total number of logs rafted and delivered at Muskegon this season, up to August 15th, was 2,293,187; in 1884, during a like period, there were 3,394,800 logs rafted, making a difference between the results of the two seasons of 1,101.613 logs.

THE Duluth Improvement Company has been incorporated, with the object of carrying out a system of dock construction in that city. The improvement will lie back of the present dock line, between Fifth avenue west and Rices's point, and will cover a space, now a marsh, 4,000 feet long. The design includes a number of slips, with intervening wharfage warehouses, etc.

AT Fulton, Arkansas, on the Red river, there is a saw mill which is probably the only one of its kind in the United States. Its unique feature is that it saws only black walnut, the logs being floated down the Red river. The mill consists of one circular saw and edger, and cuts about 12,000 feet per day, the entire product being shipped to the owner, H. Hermann, a furniture manufacturer in New York city.

THE *Timber Trades Journal* of Aug. 22nd says:—Messrs. Taylor, Pierce & Co., of Liverpool and Fleetwood, are now discharging at the latter place the first cargo of Quebec goods that has arrived into that port this season. It includes 2nd and 3rd quality deals, and prime ash, elm, hickory, and waney board pine. We understand that this is a most excellent consignment, having been shipped under the personal supervision of Messrs. Taylor, Pierce & Co.'s representative at Quebec. This firm is also discharging at Fleetwood spruce and Baltic goods, a large portion of which is going into immediate consumption.

THE *Timber Trades Journal* says:—Amongst the recent arrivals we notice a sample parcel of Cape boxwood, delivered at the West India Dock Warwick Castle, consisting of 55 pieces, weighing nearly three tons. The logs are of good sizes, sound and clean grown. This wood possesses a closeness of grain almost equal to the best Abassian boxwood, and it is thought will suit admirably for engraver's purposes. From the specimens of this wood, and engravings printed from it, which were shown at the Forestry Exhibition at Edingnrgh last year, it would appear to be one of the best hardwoods yet put forward as a substitute to supply the demand for the ever diminishing supply of boxwood.

## EXHIBITION.

The Liverpool correspondant of the *Timber Trades Journal* says:—The prospectus of the International Exhibition of Travelling, Navigation, Commerce, and Manufactures, to be held next year, is now being issued, and from the influential list of guarantors and prominent names set forth in the various committees, it should prove a success worthy of this city and its commercial reputation. Under the various headings of which exhibits of its commerse will be shown is that of "Timber and Fancy Woods," notified under section 7, division III., over which we understand P. Owen, Esq., of Messrs. Farnworth & Jardine, and R. Coltart, Esq., of Messrs. R. Coltart & Co., timber brokers, will preside.

Considering the important position held by this port in the timber and fancy wood trades, it is to be hoped that the various wood producing countries will put forth strenuous efforts to make the exhibition, especially of timber, one worthy of the city and of the various countries from which its markets are supplied.

We must look to the Dominion of Canada to send forward really good examples of its wealth of woods. The United States, too, must send forward good exhibits of its various kinds of timber, both in its natural and manufactured state, such as oak converted into scantling ready for waggon building, hickory in the log, and also shaped into spokes, and a hundred other things always in use, black walnutwood, whitewood, dogwood, locust, and, in point of fact, everything and anything in the shape of wood goods.

We should like to see a better show of the products of Norway, Sweeden, Russia, and Prussia, than was the case at the Exhibition of Forestry at Edinburgh last year, which left much to be desired. The guarantee fund has already reached the amount of about £38,000, and strenuous efforts are being made by appealing widely to the commercial classes and to the tradesmen of the city to increase this amount.

With this object, and to bring the exhibition more prominently before the public, the Mayor of the city has been requested to call a public meeting of the inhabitants, and he has fixed the 6th, October as the most convenient date.

### The New Traction Engine.

*From the Ontario Reformer, Aug. 28th.*

As we were going to press the New Traction Engine started with a thresher for the town of Whitby, thence north towards Brooklin. It returned a short time since, having made 14 miles without delay or accident. The long and heavy hill north of Whitby had been newly gravelled, but offered no impediment to the working of the engine. As an engine for drawing a threshing machine it has been clearly demonstrated that it has no rival on this continent.


### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y|22.

For PURITY,
WHOLESOM NESS,
And STRENGTH
**It stands without a Rival!**

## Pure Gold Manufacturing Co.

**FAIRPORT, N.Y., and TORONTO, ONT.**
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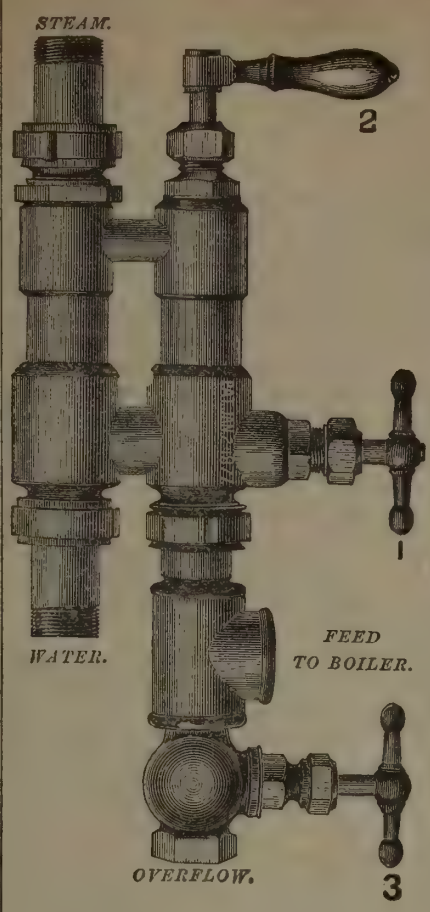


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# HUGH GIBSON,

MANUFACTURER OF

KNIGHT'S PATENT "EXCELLSIOR"

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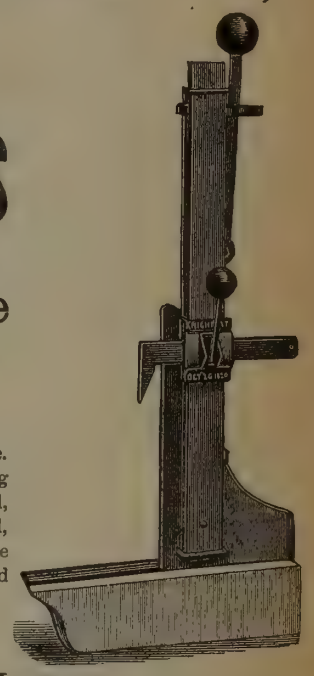
## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



Manufactured by HUGH GIBSON, CHATHAM. EXCELSIOR DOG.


## Auction Sale of Timber Berths.

DEPARTMENT OF CROWN LANDS.
(WOODS AND FORESTS BRANCH.)

Toronto 10th August, 1885.

NOTICE is hereby given that certain territory on the North Shore of Lake Huron will be offered for sale by Public Auction, as timber berths, at the Department of Crown Lands, Toronto, on Thursday the Twenty-second Day of October next, at one o'clock p. m.

T. B. PARDEE,
*Commissioner.*

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and condition of sale, will be furnished on application personally, or by letter to the Department of Crown Lands, where also maps of the territory can be obtained.

*No unauthorized Advertisement of the above will be paid for.* 4t.17


**VALUABLE**

## SAW MILL PROPERTY

—AND—

# TIMBER LIMITS,

**NEAR MONTREAL.**

## To be Sold at Sheriff's Sale.

There will be sold on the 21st SEPTEMBER next, at the Court House, in Montreal, a large Steam Saw Mill Property, situated on the St. Lawrence River at the entrance of the Ottawa, within fifteen miles of Montreal; about three hundred acres of farming land (free hold), and about three hundred square miles of timber limits well watered for driving purposes.

There is every facility for doing a large lumber business here, and is well worth the attention of lumber dealers.

Further particulars can be had by reference to the Quebec *Official Gazette* of the 15th August, or to the

**LIQUIDATORS OF THE EXCHANGE BANK**, Montreal. 2t.17

# Market Reports.

## MONTREAL.

*From Our Own Correspondent.*

SEPT. 9.—The building trade in company with almost all others is suffering from the stagnation caused by the smallpox scare in this city, and the lumber trade has been very quiet, although everything considered the amount of goods moving has been fair. Prices are unchanged and very litttle appearance of any improvement, indeed there has been a strong desire on the part of buyers to obtain lower figures, but sellers are unwilling to give way except for large lots, which could possibly be obtained a shade under our list. The following are the prices at the yards :—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 22 00@24 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Bass, " " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@22 00 |
| Hard Maple, ₱ M | 25 00@30 05 |
| Lath, ₱ M | 1 60@ 1 70 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

SHIPPING.

Shipments of lumber for the past two weeks have been very quiet as will be seen by the returns given below. The demand for tonnage has also been very slack. The latest engagements of tonnage were as follows: To Liverpool, SS Mericana and SS Mayo 45s, the SS Ben Hope, cargo partly from Montreal and partly from Quebec, 46s. 3d. To Avonmouth steamer engagements have been made at 45s. Reported engagements to London at 47s. 6d., regular liners to Liverpool 47s. 6d. to 50s. South American freights, $12 to $13, according to size of ship. The following are the recorded shipments at the Custom House for the past two weeks: SS Fern Holmes, to London, 57,348 deals and 1,388 deal ends; BK Hecla, for Buenos Ayres, 709,138 feet pine lumber; BK Bachelors, for Buenos Ayres, 554,015 feet pine lumber; SS Texas to Bristol, 452 deal ends and 3,298 boards; SS Toronto, for Liverpool, 11,083 deals, 4,305 boards and 452 ends; SS Lake Nipigon, for Liverpool, 5,727 deals; SS Oxenholme, for Liverpool, 16,694 deals, 2,336 boards and 10,000 feet of lumber; SS Cremona, for London, 31,140 deals; SS Tetania, for Glasgow, 3,644 deals and 1,403 deal ends; SS Brooklyn, for Liverpool, 1,157 deals and 9,199 boards; BK Piskatiqua, for Buenos Ayres, 520,755 feet pine lumber; SS Lake Huron, for Liverpool, 13,284 deals.

CORDWOOD.

The recent cold and unseasonable weather has caused quiet a demand for wood from the retail yards, but as they are generally well stocked there has not been much activity experienced in a wholesale way, prices remaining steady as before. We quote at the wharves and railway station ex cartage as follows :

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## TORONTO.

*From Our Own Correspondent.*

SEPT. 9.—Considerable more lumber has been handled by the wholesale men during the last two weeks, than the two weeks preceding my last letter, and the retail men on the whole have done a fair trade, with the prospect of a fair fall's business. New streets are still opening and a large number of buildings in course of completion, with numerous foundations being laid for finishing this year. The houses now being built are of a better class than formerly erected, and neater, as a rule, in appearance, and I think it may be truthfully asserted that no other city in our broad Dominion is making such rapid strides in wealth, and all that go to make up a large city.

There is now a better demand for sawn lath; this is usually the case as the close of the season comes on. Yet prices cannot be said to have advanced. Nearly all the mills now run one or two lath machines, so that the supply is abundant and no shortage likely to take place.

Your correspondent has just returned from a tour among the mills in the northern section, and finds that the quantity of lumber on hand is not as large as supposed by many people. There is ample piling room at most of the mills visited, and a very small percentage of good lumber on the stocks—this portion of the cut being generally shipped out as fast as it is fit to be removed, so that any accumulation of stock now at the mills is generally of the coarser grades of boards and plank. Prices for this class of lumber is likely to rule low for the remainder of the season. The duties imposed on lumber shipped to American ports is nearly a complete barrier to shipping the coarser grades of lumber there, and vessels are seeking cargoes at the various mills on the upper lakes and fail to find them for the above reasons. If this obstacle was removed a market for our coarse lumber would soon be found, and until such times as this is the case it will be more or less a drug on our market, and I firmly believe that the day is not far distant when our cousins over the lakes will find out that it is as much to their interest to remove this barrier to trade as it would be to our benefit.

The quantity of shingles at the mills is much smaller than it was two months ago, and the demand in western Ontario for XXX is fair. Sales for XX is weak and likely to remain so for the remainder of the season. Basswood is lower is value than formerly, culls more especially cannot be got rid of in any quantity worth mentioning. The demand for hardwoods is fair, but not hardly remunerative to the manufacturer, when the rigid inspection required by the purchaser is taken into account.

Shipments over our docks are small and vessels have difficulty in obtaining freight, $1 per M to Oswego being the ruling freight. When grain moves it will likely advance, but not to any great extent, as there are quite sufficient vessels to carry all the lumber likely to be moved, that are unfit to carry grain.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ¾ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₱ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## LONDON.

The *Timber Trades Journal* of Aug 29th says :—Without being able to point to any decided advance in prices at the present sales, yet there was decidedly an improved tone which governed the proceedings, and this was particularly noticeable at Messrs. Churchill & Sim's sale this week, and no clearer illustration of this improvement could be found than that supplied by the willingness on the part of the dealers present to exceed the prices they had marked down as their limit.

The red pine, ex Carin, from Quebec, 3×11, starting at £9, was eventually knocked down to the original bidder at £12 10s. It was some time before the broker could get the room to name a price, but when once the ball had been set rolling their was no lack of competition; the buyer did not care to waste either the time of the room or his own by repeating the process, but took the following lot at similar figure without more ado. The 2 in. narrow stuff sold cheaply, but there is not a very wide market for this class of wood, and red pine just now is rather plentifully represented in the dock stocks.

This week has probably witnessed the arrival to London of the biggest cargo of deals ever known—at any rate to the river Thames. The cargo to which we refer is that of the steamer Regius, from Montreal, which hauled into the Millwall on Tuesday last, having on board no less than 1,272 Petersburg standards for account of Messrs. Bryant, Powis & Bryant. The deck load of this big vessel amounted to over 200 standards, a tolerably big cargo of itself if we go back a dozen seasons or so.

The Regius is a large bulky steamer built more for cargo than passengers, being some 360 feet long by 45 feet beam, and discharging her deck cargo into some twenty-two lighters that range on either side, presented a somewhat astonishing picture standing out in bold relief in the middle of the Millwall Docks.

Some more vivid idea of the vast amount of timber this vessel brings can be obtained by imagining her cargo spread along a roadway and extending for 167 miles. One can hardly realize it, but such would be the fact all the same, and the deals composing her cargo would be sufficient to form a plank footway from London to Cardiff!

It is stated by a Canadian authority, speaking of this very cargo, that it would require the pine product of a thousand acres of ordinary forest land such as they have to depend on over there to supply the wood this vessel brings. Of course we are not able to say what proportion of the large acreage alluded to consisted of pine suitable for conversion, but such a monster shipment could not be obtained except of a very extended surface. The Regius's deals are chiefly 4th, but she also brings boards, besides the supsrior qualities of Booth's, Hamilton's and other cuts. We do not recollect having seen brighter and fresher looking deals of the above quality. Most of the cargo is for delivery overside to the various mills, the Imperial taking the Lion's share.

The allotment letters of the New Brunswick Trading Co., of London, were, we understand, posted on Tuesday last. The ordinary capital we learn was over-applied for, but the allotment did not exceed the number of shares named in the prospectus. The preference shares have also, it seems, been largely subscribed. Thus the Company seems to have started under very favorable auspices.

## LIVERPOOL.

The *Timber Trades Journal* of Aug. 29th says :—The general tone of business during the week has, so far from showing further signs of improvement as was generally anticipated, proved to be the reverse, and what little increase in the volume of trade and improvement in prices has been lost.

The auction sales, which have been numerous during the week, might have been supposed to infuse some life into the trade, but all alike have been of the dullest and most unsatisfactory nature. Prices have been down, and the bidding so slow that the patience and perseverance of the various auctioneers have been taxed to the utmost.

In the manufacturing districts the reports from all quarters are unanimous in describing the various trades as being in a most unsatisfactory condition, and, as if this was not bad enough, there are still no indications of a settlement of the wages dispute in Oldham, both men and employers remaining quite firm. Unfortunately the dispute appears to be spreading, the spinners in Bolton and the adjacent district having given notice to reduce wages 5 per cent.

## GLASGOW.

The *Timber Trades Journal* of Aug. 29th says :—An auction sale of log timber and deals at Greenock and one of deals, &c., at Glasgow have been held within the week. A quiet demand was shown, though the attendance was good. About 400 logs were disposed of at the Greenock sale besides various lots of deals. A variety of goods were comprised in the catalogue for the sale here on the 26th inst., consisting mostly of deals, various quantities; also wainscot oak, billets and planks, &c; but the bulk was withdrawn, there being little competition, and offers not coming up to the views of the brokers. A lot of 1st quality broad Michigan pine deals brought 3s. 7½d. per cubic foot.

Although the import of pine deals from Quebec and Montreal to Clyde ports has up to date been on the whole rather larger than that of last year, for some period there has been a very small proportion of 1st quality deals among this season's arrivals. There are, however, some parcels of first Michigan deals now landing and being yarded here.

The totals arrivals this year of deals at Glasgow per steamers from Quebec and Montreal amount at date to 183,000 pieces; and at Greenock per sailing vessels from Quebec, 68,000 pieces. In 1884, at corresponding date, the totals were: Glasgow 156,000 pieces and Greenock 58,000 pieces; but it is to be noted that the total import of Canadian deals last year as compared with preceding ones was exceptionally small. At present, however, in view of the generally quiet demand, the market may be considered pretty well stocked, especially as regards the ordinary qualities.

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## ALBANY.

Quotations at the yards are as follows :—

| | |
|---|---|
| Pine, clear, ₱ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black walnut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₱ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

IT is said there are 22,000,000 acres of timber land in western Washington territory, an area equal to all of New England except Maine and Rhode Island. And it is further said, that the quantity of timber is so great that the saw mills of Puget Sound, with their present capacity of 500,000,000 feet per year, would take 1,000 years to cut it down.

## WEST HARTLEPOOL.

The *Timber Trades Journal* of Aug. 29th says :—Very few orders are being received for sawn wood goods, but the demand is steady even if quiet, and certainly no worse than has been felt for several weeks past. Orders for peals, battens, and boards from the general building community are exceedingly scarce, but a few good sized orders are being loaded up for such considerable buyers as the North-Eastern Railway Company and from inland merchants. Quebec yellow pine deals are seen in fair demand, but the business doing is more of a wholesale character, merchants who hold little or none of these goods buying from the importer

for stock account. In large timber the demand is rather better, and the same remark applies to the mining timber department. As amongst deals so in timber, a fair demand is seen for the Quebec goods recently landed, and a good many orders for oak, ask, birch, yellow and waney board pine are being loaded up, whilst a steady business is doing from the sawn pitch pine and Stettin oak stocks. The sleeper cutting mills of Messrs. Burt, Boulton & Haywood, and Messrs Lauder & Co. appear well employed, but there is not so much doing as usual at the sleeper mill belonging to the North-Eastern Railway Comyany.

### THE ERIE CANAL.

The Erie Canal is a far too important factor to the lumbering interests of the State of New York to be ignored. Cheap canal transportation to the seaboard is not only of direct benefit to the inhabitants of the state, but affects also all those western shippers and merchants who utilize the lake route to Buffalo and Tonawand a as the best means of bringing their lumber to market; and the better the Erie Canal can be used for its legitmate purpose the large will be the benefit acc.ding to the lumbering interests of the Northern States. It is a well known fact that its capacity has, of late years, become insufficient to counter-balance the very close competition of the railroads; deeper water and larger locks are demanded, which will enable the boats used at present to take a bigger load, and by a saving of time in the larger locks, make perhaps two more trips during the season. The question has of late been ontensively agitated by shippers and boatmen, and at a call for a canal conference at Utica recently, the response was most encouraging and harmonious. The often discussed question of national aid for the Erie Canal was rejected, as the Empire State was considered wealthy enough to maintain a free canal with capacity in keeping with the present times. An urgent appeal is to be made for the appropriation of money to increase the size of the locks so that the two boats can go through at the same time; and to clean the bottom of the canal and by piling the dredgings on the banks, increase the depth of water at least one foot, which will allow the use of steam towing. With these improvements the canal is considered to be in a condition to meet all the demands for some time to come and thereby maintain its high office as a regulator of freight charges between the west and the seaboard. Both political parties of the State will be called upon to insert planks to that purpose in their platform for the coming fall campaign, and it is not at all impossible, that the one who refuses to do so, will be the party that has to bear defeat in the coming election.—*Buffalo Lumber World.*

### TRADE AT DULUTH.

The *Lumber World* says:—Although Duluth is striding forward to its unmistakable destiny as a center of trade and commerce, says the Lake Superior *News*, it needs many things as yet unnoticed to round the completeness of its growth. Our citizens must not rely too strongly on lake commerce and grain trading, these things alone will not make a city. The one thing now needed is more manufacturing industries. Furuiture factories, wooden establishmen'ts of all kinds, mills for production of wood pulp paper, twine factories and numberless other industries which will occur to the seeker investments. The forests in the neighborhood are composed of pine, pitch, oak, maple, poplar and many other woods, all useful, but all except the pine unused. Iron, steel, copper, and other metals are produced in our immediate neighborhood. For the manufacture of woodenware Duluth presents every advantage, fuel is cheap, labor is plenty, raw material is at hand, a market immense in extent is at our doors.

**Professional Etiquette**

prevents some doctors from advertising their skill, but we are bound by no such conventional rules, and think that if we make a discovery that is of benefit to our fellows, we ought to spread the fact to the whole land. Therefore we cause to be published throughout the land the fact that Dr. R. V. Pierce's "Golden Medical Discovery" is the best known remedy for consumption (scrofula of the lungs) and kindred diseases. Send two letter stamps for Dr. Pierce's complete treatise on consumption, with unsurpassed means of self-treatment. Address World's Dispensary Medical Association, Buffalo N.Y.

### FORESTRY CONGRESS.

The next annual meeting of the American Forestry Congress will be held in Boston, beginning Sept. 22nd, and the programme of the proceedings gives promise of an unusually interesting conference. There is now a pretty general appreciation of the importance of taking action to protect existing forests and plant new ones, and the considerations actuating the congress must appeal to a common sentiment, since every condition of life is affected much or little by them. Experience has shown that the wholesale clearing of forest clad hills and mountains seriously influences the water supply, decreasing, or making it irregular; and the immediate benefit to agricultural interests derived from properly distributed forest areas has come to be understood by every intelligent farmer. It is obvious, therefore, that the persent mad policy of converting ferests into timber without proper selection and with no provision to replace them must ultimately seriously affect the wealth of the country.—*Chicago Inter-Ocean.*

### GREAT CANALS.

The Imperial Canal of China is over 1,000 miles long. In the year 1851 was completed the greatest undertaking of the kind on the Euoropean continent, the canal of Langaedoc, or the canal du Midi, to connect the Atlantic with the Mediterranean; its length is 148 miles, it has more than 100 locks and about 50 aqueducts, and its higest part is no less than 600 feet above the sea; it is navigable for vessels of upward of 600 tons. The largest ship canal in Europe is the great North Holland Canal, completed in 1825—125 feet wide at the water surface, 31 feet wide at the bottom, and has a depth of 20 feet, it extends from Amsterdam to the Helder, 51 miles. The Caledonian Canal, in Scotland, has a total length of 60 miles, including three lakes. The Suez Canal is 88 miles long, of which 66 miles are actual canal. The Erie Canal is 320½ miles long; the Ohio Canal, Cleveland to Portsmouth, 232; the Miami and Erie, Cincinnati to Toledo, 291; the Wabash and Erie, Evansville to the Ohio line, 374.—*Scottish American.*

### FIRST LOCOMOTIVE.

Thirty-two years ago when the first locomotive engine passed through the Tublar Bridge which was a new expsriment on a grand scale What an anxious day must that have been for Rebert Stevenson! It was then that he won his greatest fame as an engineer. It was, indeed, a great triumph to carry a train through a tubular bridge over the Straits of Menai. The largest arched span that had been previously constructed was 240 feet, and here rigid iron tubes 460 feet long were stretched in mid air where the tallest ships could sail beneath them. So broken had Stephenson's rest been whilst planning this great enterprise, that when he got the first tube floated, and was satisfied that all was safe he said. "Now I shall go to bed!" But although so far successful the anxieties connected with the enterprise was not at an end, for the bridge, which is now the wonder and marvel of the traveller, had only been commenced; and so exhaustive was the gigantic undertaking, that in referring to it after its completion, Stephenson says: "It was a most anxious, harrassing time with me. Often at night time I would lie tossing about, seeking sleep in vain. The tubes filled my head! I went to bed with them, and got up with them. In the gray of the morning when I looked across the square in which I resided (in London), it seemed an immense distance across to the house on the opposite side. It was nearly the same length as the span of my tubular bridge!" When the first tube had been floated a friend remarked to him, "This great work has made you ten years older;" to which he replied, "I have not slept sound for three week!"

THE "Big Mill" of the Rathbun Company at Deseronto cut 4,060,977 feet of lumber during the month of August.

* * * * A disease of so delicate a nature as stricture of the urethra should only be entrusted to those of large experience and skill. By our improved methods we have been enabled to speedily and permanently cure hundreds of the worst cases. Pamphlet, references and terms, three letter stamps. World's Dispensary Medical Association, 663 Main Street, Buffalo, N. Y.

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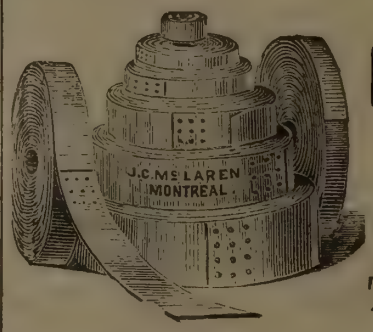


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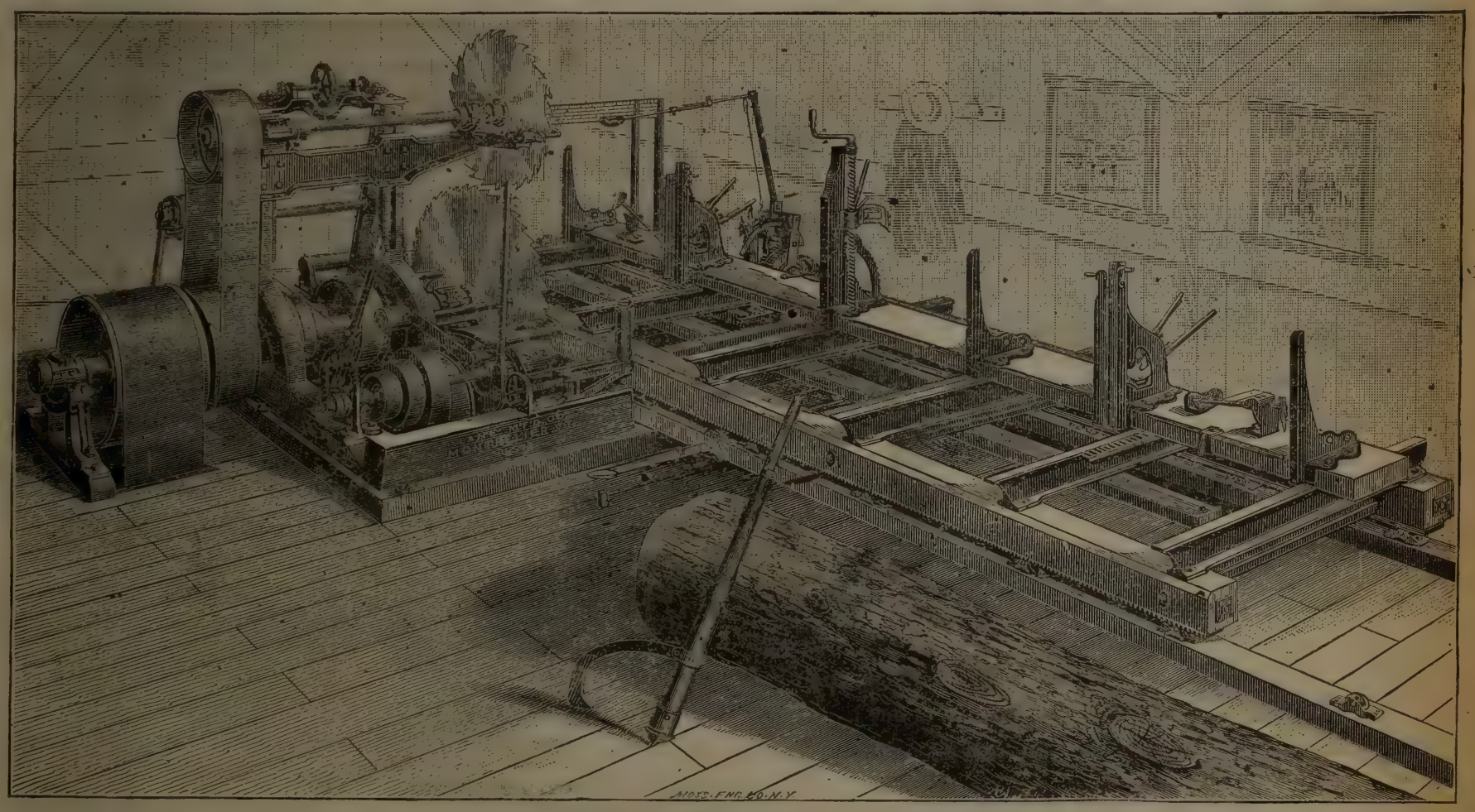

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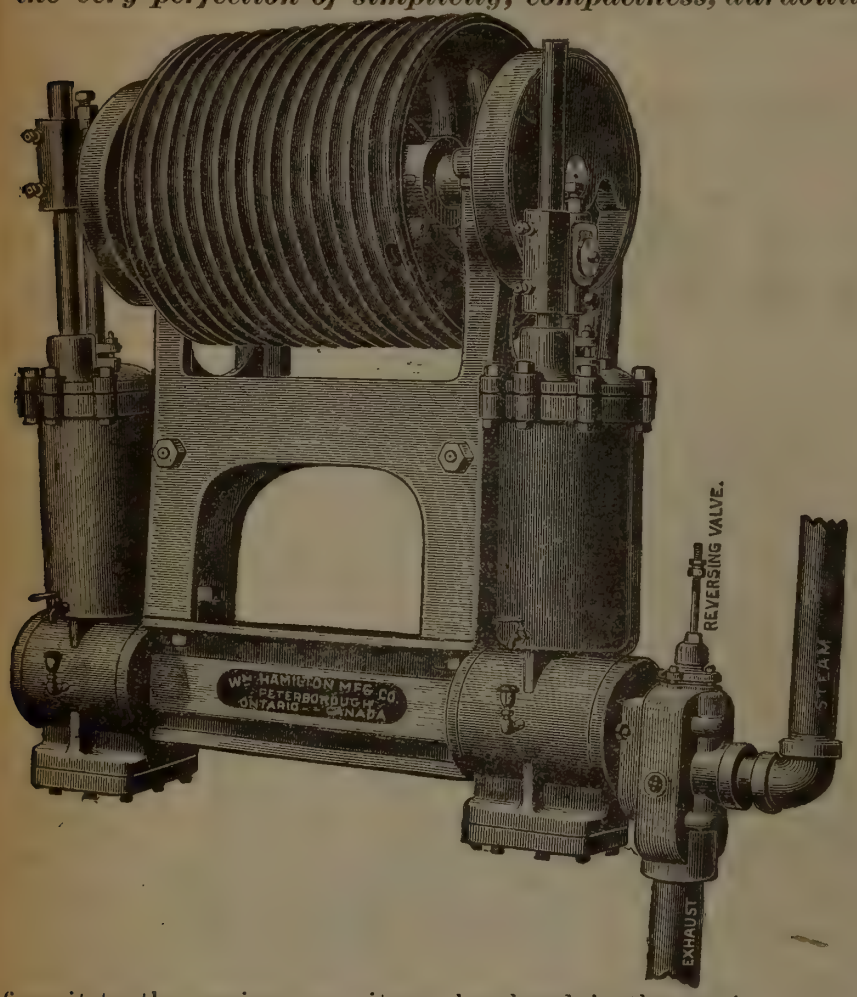
# PATENT OSCILLATING TWIN ENGINE
## FOR STEAM FEED IN CIRCULAR MILLS WITH RACK OR ROPE.

***This Engine has practically but two moving parts, aside from cranks and shafts. The whole array of eccentrics, valves, valve rods, connecting rods, cross heads, slides, levers, rock shafts, bell cranks, etc., is done away with, and the very perfection of simplicity, compactness, durability and cheapness attained.***




The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoupling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

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☞ ***We guarantee this to be the best Mill of its kind got up, and would ask any one wanting a good Band Saw-Mill to communicate with us. We would also call the attention of Mill Men to our new IRON GANGS, CIRCULAR MILLS and MILL MACHINERY. For further information, prices, &c., address the Manufacturers,***

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***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

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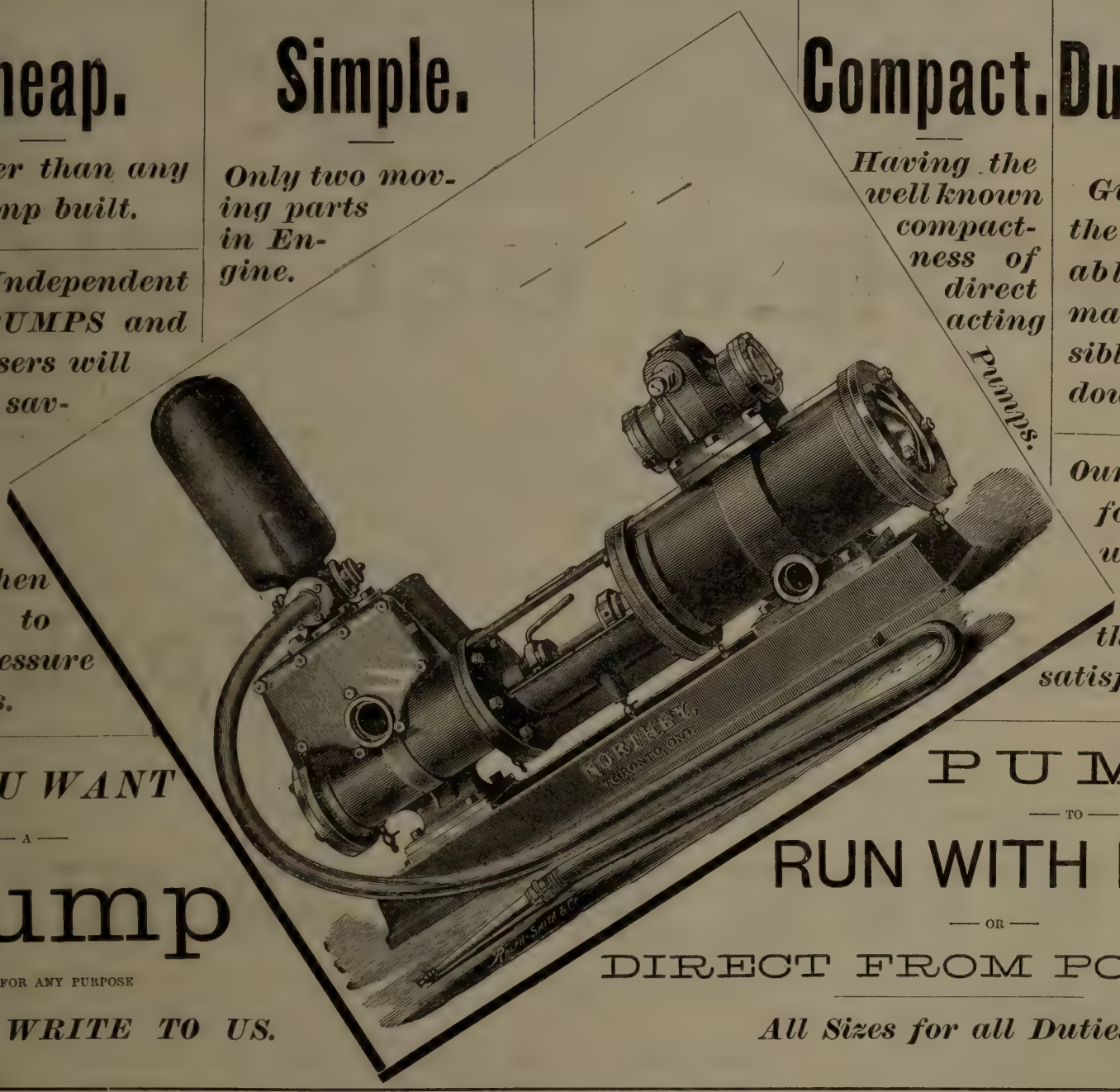
***Only two moving parts in Engine.***

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**TESTIMONIAL**

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Yours respectfully,
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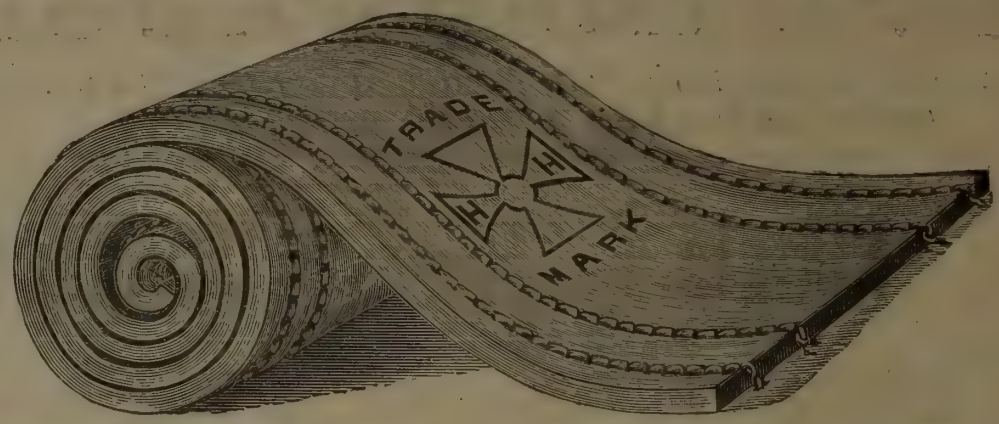


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PAGE, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

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***Replaces, when used, all others.***
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***Superior for Cross or Double Belts.***
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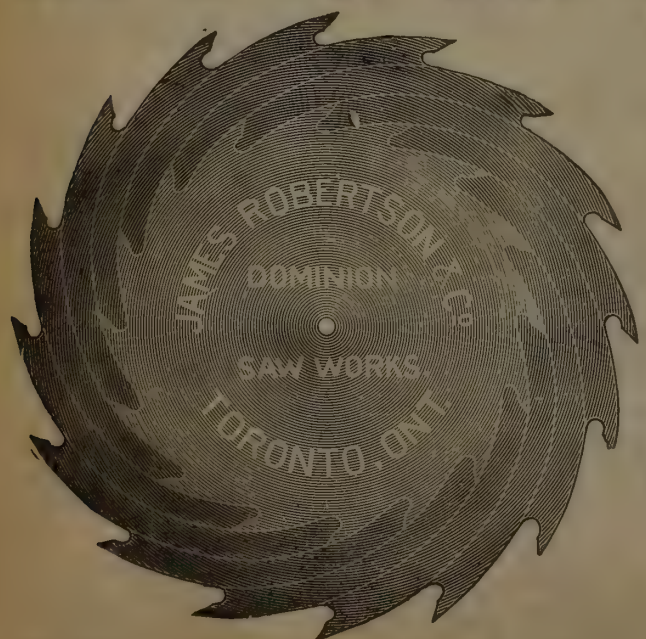


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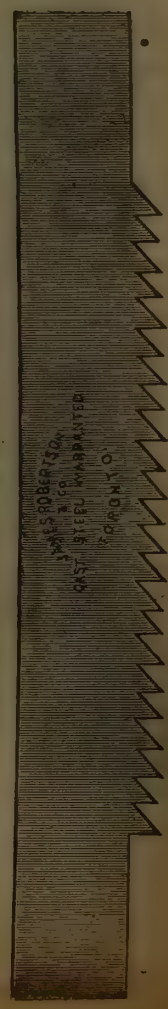


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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY. | *The only Newspaper devoted to the Lumber and Timber Industries published in Canada* | SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., OCTOBER 1, 1885. NO. 19.


### HOW A BOOM IS CONCEIVED.

The remark is now frequently heard, "I do not expect a boom; all the country wants hereafter is a good, steady business condition, with some profit in it." Such a state of things would undoubtedly be for the general good if it could be maintained. But booms do not come as if made to order. In this country they naturally grow out of prosperity. Men are apt to speak of booms as if somebody, or some class, was responsible for them. They are criticised as if blame were inherent in them, and that the blame should be fastened upon some evil disposed persons or combination of persons, who had connived to participate the evil of booms. But a boom in the United States is simply the outgrowth of prosperity, or the accumulated volume and accelerated movement of prosperity. Just as sure as there is now to be another period of revived industry and trade, as certain will there be another boom There may be a year of moderate, legitimate business to make up for the loss of the past two years but the momentum acquired will after a year or so quicken into a boom, unless, as might happen, there were unlooked for hindering cause running counter to the general prosperity.

It was so in 1880. Business began to improve in 1869; that is, it was observed in that year that the demand for commodities was improving, prices were a little higher, though not much. But in the fall of 1880, even through there was a presidental campaign in full blast, men began to say, "the times are now very good; manufactories are running; the demand for commodities is active, and prices are tending upward, and railroads are being extensively built." The very next year the boom was under full headway, and the speed of things was so high that the cautious began to wag their heads, look wise and concerned, and predict a sudden reaction not far in the future. And they were right; the reaction was felt in 1882, and was pronounced in 1883.

We are now in a condition similar to that of 1879. The lowest point in depression has been reached, we have passed a little beyond, and have begun to ascend. We may next expect to reach a steady place in our industrial and trade progress; in other words, the boom tide is likely to rise next year. It is useless to deprecate the coming wave, or anathematize it, and command it back, like King Canute. It is probable, however, that there are many men who have learned wisdom of past experience, and that there will be more anchors to the windward during the coming business gale, and a closer watch kept of the trade are ripe for such another period of push ahead as this country has never passed through. Money is plenty, and it is as good as the government itself; the ways and means of transportation were never before so ample; the plants and appliances for manufacture were never before so numerous or perfect; newly discovered mines are awaiting development; recently settled areas are about to be reached by railway extensions; the Atlantic and Pacific seaboards are more closely than before connected by railroads; Mexico has been opened to American trade; there is a new South, and sectional fraternity; the middle classes are wealthier than ever before; there are more homes owned by the industrial classes in city country, and the great cities are growing and improving at an astonishing rate. Verily the times are ripe for great things.—*Northwestern Lumberman.*

### HOLLOW SHAFTING.

The strength of a shaft is increased by arranging the material in the from of a hollow tube in stead of leaving the metal in one solid round bar of the same length; but this is no reason that a solid shaft is increased in strength, or better prepared to resist the action of twisting, by boring out a portion of its material along its central line. Frequently a workman entertains the fallacy that the central core of an axle, or the bearing of a shaft, is a hindrance in the way of strength, and is one of the reasons for making them hollow, when it is simply one the arrangements of the material by which the strength is improved. The boring of a shaft out hollow diminishes its weight as well as its strength, but he material being removed along the central portions of the shaft is taken from where it offers the least resistance in the act of twisting and strengthens the shaft in the transmission of power, and the weight is decreased far greater than the strength. The particles on the outer surface are tested to their utmost when those in the centre and along the central portion barely perceive any action at all, and from this line to the circumference they are gaadually being brought into use till those on the circumference are ready to break asunder, when the strength of the shaft reaches its limit If we were to bore out a 10-inch shaft, such as are used in driving the propeller of a vessel, with a hole four inches in diameter, we would reduce its weight nearly 16 per cent, or as the weight of a four inch shaft compared with one ten inches in diameter; and yet its strength has not been reduced more than 2½ per cent. as shown from careful tests made especially in deciding questions of this character. The success of many of the designs lies in the arrangement of material, and whenever a fracture is likely to take place, increases the line of breakage, so as to bring as many particles to the front as are needed to take the brunt of the battle, or give them the proper leverage to work with the cohesive effect of any material in the path of a break or fractnre, at the moment the division takes place, depends on the amount of destortion or destension of every divided particle as compared with those of a similar nature where they have reached their limit of extension, and are ready to receive a permanent injury. This together with the advantage in the way of leverage, performs the work or overcomes the load that is to be removed. With this principle in the operation of matter to resist the action of torsion, it would be difficult to increase the strength of a shaft by removing any portion of the material, as every particle is tested in its shearing strength to some extent before any of them are served entirely, though the resistive effect may be slightly noticed.—*Boston Journal of Commerce.*

### A CURIOUS LUMBER.

While making a hurried western trip a short time ago, we were shown a piece of lumber made entirely of shavings, various different woods having been used, and the effect was beautiful, indeed. We have treated fine refuse shavings and sawdust with dilute acid under pressure, and when the mass assumed a pulp-like form, placed between a series of hot polished rollers and beautiful appearing wood ensued. Now, if some enterprising operator would make the same experiment, adding pyroligneous acid under 85 pounds pressure for ten hours, then run into molds subjected to hydraulic pressure, the result would be still better, besides which all the liquor could be recovered, the wood would be beyond the power of nature to imitate, and would last in nearly any climate forever, virtually.

We have drawn plans and specifications for three or four establishment for making chemicals and the like from refuse wood, some of which are already in successful operation, and we notice that some parties in New Brunswick are now experimenting with this waste by first grinding it up, and subsequently cooking with steam pressure. This is by far too costly to become profitabe, for the acid can be produced very cheaply from the coarser refuse, limbs, knots, etc., that could not be worked into boards, and the liquors used for treating the finer varieties; besides which there would ensue as a by-product other commercial articles that would sell for nearly, if not quite, as much as the refuse pile is originally worth.

The old and tried processes of chemical making from wood-wastes works better to-day than when first introduced; the prices for all the products of course increase in proportion to the demand, which increases very rapidly at the present time. In fact, there is no ordinary incentive for using these products, inasmuch as many of them are now imported from countries where timber is very scarce and dear, and the only advantage they have over us is cheap labor, an argument easy answered by the statement that very little labor, and that of the cheapest kind, is needed in the processes of reduction.

As to the uses of the products they are becoming more general every year in the matter alcohol alone. The wood spirits have effected a saving of no mean per cent. to paint manufacturers alone. The reasons are perfectly plain: These spirits can be and are made of 90 degrees strength and sold at 90 cents a gallon with profit, while the other or grain spirits, cost three times as much. Then the acetate of potash, costing in Manchester or Newcastle 12 cents per pound, can be made and sold here with profit for one-sixth the amount. The acetate of lime has the same relative price both here and abroad, and with the immense amount of old and scrap leather to be found on every hand, it is really wonderful that any of this refuse wood and trash is allowed to rot or cumber the ground as an unsightly, smouldering, smoking heap.

It should be borne in mind that all the articles enumerated in the foregoing are in addition to those used or consumed in the making of artificial lumber. If all articles present are to be taken out and manufactured for market, there is ample scope for both talent and capital, inasmuch as the half has not yet been told. What, would the reader think that a cord of scrap wood, aye, even a cord of refuse tan-bark, contained not less than sixteen dollars worth of aniline! You would call us theorists, but employ a good chemist to make the extraction and see for yourself before you yield to the temptation of saying, "I know it is not so much as he says."—*Lumber Trades Journal.*

### RAINY LAKE LUMBER COMPANY.

It gives us much pleasure to learn that arrangements are being made by this company to resume operations here almost immediately by starting up the mill and getting out logs for future seasons' operations. A change has been made in the Board of Directors whereby Mr. W. Buckingham and Mr. James Corcoran, of Stratford, have taken the seats of Mr. J. D. Edgar, M. P., Toronto, and W. F. Alloway, of Winnipeg. Mr. John Ross, contractor, is now president of the company, in the place of Mr. Hugh Sutherland, M. P., resigned, and Mr. Buckingham, sec.-treas, and Mr. Richard Hall, manager, in place of Mr. Thomas H. Sheppard, resigned. The company have an exceedingly valuable property and with the improved and improving state of the lumber market its prospects are good.—*Rat Portage Progress.*

A DESPATCH from Ottawa dated Sept 1st says:—An idea of the extent of the export trade in sawn timber from the port of Ottawa alone to the United States, may be gleaned from the official report of Col. Rebins, ex-Consul, furnished to his Government for the past fiscal year. The total value of the exports was $2,100,520, of which $1,947,730 was sawn lumber.

## THE LUMBER MANUFACTURERS' CONVENTION.

The sixth convention and annual session of the Lumber Manufactures' Association of the Northwest was held at the Grand Pacific hotel, Chicago, on Sept. 22. About 50 members were present, representing the great lumber interests of the great northwest. The convention was called to order by the president, A. G. Van Schaick. Among those present were A. A. Carpenter, Uri Balcom, George H. Holt, J. H. Swan, William O. Goodman, W. C. Culberston, and J. A. Culberston, of Chicago; W. Pettibone, Hannibal; Charles W. Behrens and William Hayes, Winona, Minn.; D. M. Dulaney and G. W. Dulaney, Hannibal; Charles Horton, Winona; G. W. Cable, Davenport, Iowa; J. W. Wells, Menominee; H. M. Glenn, E. W. Durant, jr., of Stillwater; D. Joyce, Lyons, Iowa; C. Lamb, Clinton, Iowa; George W, Roby, Ludington, Mich.; E. Auston, C. L. Coleman, John Parey, W. E, Sawyer, and W. W. Crosby, La Crosse; F. McDonough, O. H. Ingram, and William P. Tearse, Eau Claire; S. W. Farnham and C. M. Maxy, Minneapolis; G. W. Backus, Saginaw; J. M. Bassett, Minneapolis; C. Rudduck, Muskegon; C. N. Nelson, Minneapolis; L. B. Wadleigh, Clinton, Iowa, and J. H. Knight, of Ashland.

President Van Schaick opened the proceedings by reading his annual address. He said:

"A review of the lumber trade of the northwest for 1885 to this time will show a decline in values of fully 15 per cent. below the prices of 1883, and a reduction in the amount sold of 10 per cent. compared with 1884. With no idle saw mills, unless closed recently, and but a moderate amount of night-sawing; with a demand for lumber at wholesale unsatisfactory to manufacturers, which even low prices do not increase, candid men do not deny that the supply has been fully 25 per cent. too great for to allow a price to prevail that would pay 6 per cent. upon capital employed and provide for the ordinary wear of machinery and a reasonable profit for the risks incidental to business. If this is the true condition of the lumber trade a further reduction must be made in the annual supply before the business will afford a reasonable profit, unless the demand for lumber increases greatly during 1886, or the cost of production is reduced, or both. Three methods suggest themselves, however, by which good results may be secured:

1. Reduce the cost of manufacturing lumber, which will naturally follow a large reduction in the annual supply.

2. Increase consumption by enlarging the territory supplied.

3. Reduce production twenty per cent compared with 1885, and pile and carry at the saw mills any surplus above the legitimate demands of business.

Of the three methods the last can be made successful, being absolutely under the control of the manufacturers; and while the others are correct in theory, they are not likely to succeed, as labor will naturally advance rather than decline now that other branches of western industry are recovering from the depression of the past, and the number of immigrants abroad has been greatly reduced.

The stringency of 1873 affected the value of lumber unfavorably until 1878, when the rapid increase in the wealth and population of the west, the extension of railroads, the increased production of silver, and satisfactory prices for grain increased the demand for lumber and advanced its value. With these precedents, and the fact that no branch of western industry has wholly recovered from the effects of the recent stagnation and financial stringency, how can we hope to find buyers for more than 5,000,000 feet of lumber in the west in 1886? The markets of the western states absorbed so large an amount of lumber in 1882 and 1883 that manufacturers continue to base the supply on the sales of those years, and now when dealers in the distributing markets fail to advance prices from the present low standard they cannot be censured by manufacturers, who alone are responsible for the overstock, and while at this season of the year fully half the visible supply of lumber is usually owned by yard-dealers, they are wholly at the mercy of the owners of logs and lumber, for while the yard dealers must await the slow routine of consumption to dispose of his stock the manufacturer consigns a steady volume of lumber to the wholesale markets and disposes of it at the current market price, and often at forced sale, and by this means becomes responsible for continued low prices.

I consider the foregoing as an additional reason why the manufacturers should carefully adjust the future supply to meet the estimated demand, and congratulate each other that the abundance of money and the moderate rate of interest, together with the profits of recent years, have enabled them to bridge over the past.

A reduction in the hours of labor in saw-mills has been proposed by manufacturers of exper ience as a remedy for over-production, and they estimate that a change to a 10-hour system would reduce the production of lumber nine per cent.

If adopting the 10-hour system would result in a reduction of but five per cent. in the quantity of lumber manufactured I would regard the change beneficial, for it is the last five per cent. of lumber produced that overstocks the market usually and the dread of its coming that causes weak and declining markets. I fear, however, that mill-owners would resort to night sawing to keep their present annual production good, and thereby increase the demand for men and possibly add nine per cent. to the cost of sawing the entire production."

A. A. Bigelow, the treasurer presented his report.

The report of the secretary, E. S. Hotchkis, was read and accepted by the convention.

A committee on business was then appointed and the convention took a recess until 2 o'clock. On re-assembling the following officers of the association were elected for the ensuing year: President, A. G. Van Schaick; Vice-President G. C. Merriman; Treasurer, A. A. Bigelow. Directors, E. E. Creepin, White Lake, Mich.; A. T. Lay, Traverse City, Mich.; E. W. Durant, Stillwater, Minn.; O. H. Ingram, Eau Claire, Wis., R. G. Peters, Manistee, Mich.; W. O. Goodman, Menominee, Mich.; J. H. Swan, Muskegon, Mich.; P. M. Musser, Muscatine, Iowa; George W. Cable, Davenport, Iowa; C. L. Coleman, La Crosse, Wis.; J. M. Gould, Moline, Ill.; G. W. Roby, Ludington, Mich.; S. W. Farnham, Minneapolis; W. H. Laird, Winona, Minn.

The committee on business then presented its report, and suggested the following topics for the discussion of the convention:

1. Has the demand for and the consumption of lumber in 1885 been equal to the supply?

3. Do the present and prospective prices of other commodities warrant hope of a material advance in the price of lumber?

3. Considering the existing demand for lumber, and the supply of logs and lumber in sight, what will be a reasonable log supply for 1866?

4. If the current price of lumber in the distributing market is too low, is it the manufacturer or yard dealer who is responsible for low prices?

5. Can a system of fire insurance on lumber at the saw mills be adapted whereby the present premium can be reduced?

The major portion of the afternoon was occupied by the members in giving expression to their views upon these questions and in receiving reports from numerous boom companies not represented in the convention. The general tenor of the discussion was that the supply for 1885 was greatly in excess of the demand, and that some specific measures should be taken in order to remedy the evil of over-production. Many contended that the fault of over-production lay with the manufacturers. It was stated that the low price of lumber had greatly stimulated building but that business had been done without a fair profit to the manufacturer. An effort was made to commit the association to an advance in prices of 15 per cent, but this was voted down. It was unanimous opinion of the convention that the supply should be reduced, and on motion of A. A. Carpenter it was resolved that if the stock of 1886 was as large as that of 1885, with the present stock left over, there was no hope of an improved condition of prices, and recommending that for the next season there be a curtailment in total production and old stock of at least 20 per cent.

After a lengthy discussion ot the question of fire insurance the matter was referred to a committee, to be hereafter appointed by the chair, to report at the next convention.

A resolution was unanimously adopted declaring that the constantly-fluctuating railroad tariffs effected a serious demoralization in the lumber trade, creating uncertainties among dealers and undue and disastrous competitions, practically placing at short incervals what operates as an embargo on business, and recommending the formulating of a memorial to the managers of the railroads of the northwest asking that changes in railroads tariffs be not made oftener than at intervals of three months, believing that the interests of the railroad companies in this matter were coincident with those of the manufacturers, dealers, and consumers of lumber.

An attempt was made to commit the association to a general law in favor of ten hours as a legal day's work for laborers employed by the manufacturers, but the matter was finally laid over until the next convention.

The convention then adjourned to meet in Chicago on the third Wednesday in April, 1886.—*Lumberman's Gazette.*

## CO-OPERATION.

The *Timber Trades Journal* says:—There was a very good article in one of our American contemporaries about the inclination in the present day to dispense with the middleman, *i. e.*, to bring the consumer and producer face to face without the assistance of any third party. The co-operative stores which took fast hold here, and have now become one of our recognised institutions, were undoubtedly the thin end of the wedge as far as the wholesale trade was concerned. In America they do not encourage co-operation, though abroad there is now a growing tendency to trade on the mutual system.

Here the competition is so keen that every effort is made to reduce the cost of the article produced, and as this has apparently reached its minimum in actual production, the only thing left to combat is the charges on it after it leaves the manufacturers' hands.

We do not believe, however, that in Great Britain, in spite of the success the co-operative stores have met with, that the services of an intermediate agent will ever be done away with in London, and in the timber trade especially, the advantages of a broker or go-between are so obvious that buyers and sellers will always be ready to support them.

As a matter of fact merchants generally have been able to hold their own against co-operation and the leading houses keep their connection together in spite of the stores and cost prices. There can be no doubt that the percentage of profit has been greatly reduced in consequence of the co-operative competitiou, and a large turnover at a reduced rate is now the mode of doing business.

THE municipal authorities of Madras have extended the right of suffrage to women.

## THE TIMBER SUPPLY.

Mr. Best, of the forestry division of the agricultural department, supplies the following figures to correct an erroneous statement regarding the are of improved and unimproved lands in the United States recently telegraphed from Michigan: The superficial area of the United States is, outside of the District of Columbia and the Indian territory, 1,856,000,000 acres. There are 44,555,000 acres in forest, 285,000,000 acres of improved and 1,126,000,000 of unimproved and waste land. At the present rate in which the forest is disappearing, the timber cannot be expected to last longer than 20 or 25 years.

In Michigan, the greatest lumber producing state in the Union, the first saw mill was planted about 50 years ago. At that time it was estimated that there were 150,000,000,000 feet of white pine standing in the forests of the state. The estimate for 1885 is 32,000,000,000 feet which shows it has disappeared at the rate of 2,300,000,000 feet annually for 50 years. The estimated amount cut into lumber in Michigan in 1884 was 5,100,000,000 feet, board measure, which is about one-sixth of the whole amount cut in the United States for that year.

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Aug. 1885, and also for the 7 months ending Aug., 1885:

MONTH ENDED 31ST AUG. 1885.

| *Timber (Hewn).* | *Quantity. Loads.* | *Value £.* |
|---|---|---|
| Russia | 52,836 | 90,901 |
| Sweden and Norway | 63,596 | 89,973 |
| Germany | 37,051 | 76,398 |
| United States | 10,512 | 37,765 |
| British India | 2,324 | 31,014 |
| British North America | 75,708 | 385,703 |
| Other Countries | 37,670 | 57,677 |
| Total | 279,997 | 719,431 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 204,775 | 448,238 |
| Sweden and Norway | 227,292 | 484,956 |
| British North America | 197,049 | 506,716 |
| Other Countries | 30,902 | 90,371 |
| Total | 660,018 | 1,533,381 |
| Staves, (all sizes) | 14,121 | 50,271 |
| Mahogany (tons) | 3,414 | 27,793 |
| Total of Hewn and Sawn | 940,015 | 2,252,812 |

EIGHT MONTHS ENDED JULY 31ST 1885.

| *Timber (Hewn).* | | |
|---|---|---|
| Russia | 168,232 | 306,551 |
| Sweden and Norway | 375,313 | 523,106 |
| Germany | 223,718 | 511,524 |
| United States | 113,917 | 371,205 |
| British India | 25,406 | 344,086 |
| British North America | 127,160 | 555,637 |
| Other Countries | 275,998 | 389,012 |
| Total | 1,308,844 | 3,007,191 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 647,969 | 1,366,475 |
| Sweden and Norway | 1,126,262 | 2,371,944 |
| British North America | 452,863 | 1,128,952 |
| Other Countries | 245,135 | 731,942 |
| Total | 2,472,229 | 5,599,313 |
| Staves (all sizes) | 76,013 | 322,885 |
| Mahogany (tons) | 38,552 | 339,764 |
| Total of Hewn and Sawn | 3,781,073 | 3,606,504 |

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock tof Timber and Deals in Liverpool on Sept. 1st 1884 and 1885, and also the Consumption for he month of Aug. 1884 and 1885:—

| | *Stock, Sept. 1st. 1884.* | *Stock, Sept. 1st. 1885.* | *Consumption for the month of Aug 1884.* | *Consumption for the month of Aug. 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 424,000 ft. | 320,000 ft. | 309,000 ft. | 264,000 ft. |
| " Waney Board | 516,000 " | 363,000 " | | |
| St. John Pine | 19,000 " | 33,000 " | 3,000 " | 00,000 " |
| Other Ports Pine | 69,000 " | 44,000 " | 12,000 " | 1,000 " |
| Red Pine | 66,000 " | 30,000 " | 4,000 " | 1,000 " |
| Pitch Pine, hewn | 646,000 " | 615,000 " | 105,000 " | 159,000 " |
| " Sawn | 477,000 " | 734,000 " | 129,000 " | 303,000 " |
| Planks | 85,000 " | 98,000 " | 12,000 " | 14,000 " |
| Dantzic, &c., Fir | 50,000 " | 63,000 " | 12,000 " | 3,000 " |
| Sweden and Norway Fir | 67,000 " | 58,000 " | 00,000 " | 3,000 " |
| Oak, Canadian and American | 357,000 " | 321,000 " | 108,000 " | 87,000 " |
| " Planks | 211,000 " | 200,000 " | 119,000 " | 51,000 " |
| " Baltic | 9,000 " | 5,000 " | 3,000 " | 1,000 " |
| Elm | 44,000 " | 53,000 " | 21,000 " | 24,000 " |
| Ash | 43,000 " | 32,000 " | 7,000 " | 1,000 " |
| Birch | 69,000 " | 140,000 " | 51,000 " | 28,000 " |
| East India Teak | 23,000 " | 92,000 " | 1,000 " | 2,000 " |
| Greenheart | 54,000 " | 93,000 " | 15,000 " | 7,000 " |
| N. B. & N. S. Spruce Deals | 23,494 stds. | 16,824 stds. | 9,365 stds. | 7,678 stds |
| " Pine " | 1,100 " | 165 " | | |
| Quebec Pine & Spruce Deals | 6,822 " | 4,511 " | 2,596 " | 3,057 " |
| Baltic Red Deals, &c. | 3,507 " | 2,932 " | 704 " | 1,656 " |
| Baltic Boards | 50 " | 111 " | 20 " | 28 " |
| " prepared Flooring | 3,312 " | 2,429 " | 714 " | 1,434 " |

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### QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine.. | 2,566,303 | 1,929,145 | 2,359,563 |
| White Pine..... | 5,338,537 | 3,493,102 | 1,877,017 |
| Red Pine..... | 386,708 | 299,751 | 62,791 |
| Oak ..... | 1,428,630 | 706,100 | 1,437,325 |
| Elm ..... | 302,526 | 644,073 | 961,537 |
| Ash ..... | 223,471 | 380,117 | 256,284 |
| Basswood ..... | 2,244 | 4,415 | 47 |
| Butternut ..... | 1,028 | 1,121 | 3,083 |
| Tamarac ..... | 5,159 | 18,863 | 3,504 |
| Birch & Maple..... | 138,766 | 195,175 | 380,388 |
| Masts & Bowsprits... | —pcs | —pcs | —pcs |
| Spars ..... | — pcs | 41 pcs | 17 pcs |
| Std. Staves..... | 547.1.2.28 | 45.6.3 26 | 45.8.2.10 |
| W. I. Staves..... | 453.4.0.26 | 78.2.2.10 | 81.8.0.20 |
| Brl. Staves..... | 87.2.0.3 | 0.6.2.13 | 195.9.3.25 |

JAMES PATTON,
Quebec, Sept. 25. Supervisor of Cullers.

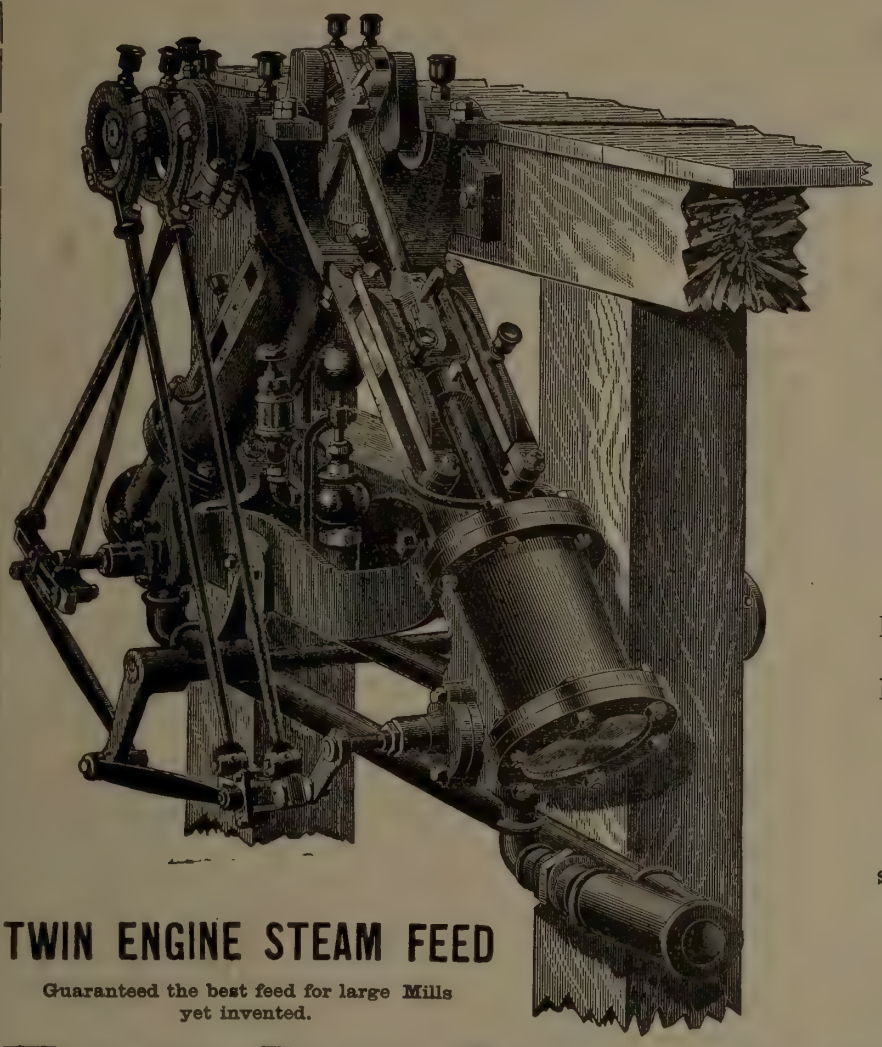
### THE OLDEST SOCIETY ON EARTH.

The Vegetarian Society of Great Britain appears to be making excellent progress. At the last annual meeting, recently held in London, a large number of distinguished men and women were present and took part in the proceedings. The president, Professor Mayor, of Cambridge university, delivered a humorous and highly instructive speech. He stated that the order of vegetarians was not only the oldest of any on earth, but that it was the most extensive.

It had its origin in Eden. The eminent ancient Peruvians and Mexicans were all members of it. A majority of the people of India China, and Japan are vegetarians. Among the old-time vegetarians were Pythagoras, Zeno, Socrates, Epicurus, Seneca, and Plutarch. The Roman porridge eaters, the Persians of Cyrus the Greeks of Leonidas, the Swedes of Gustavus asa, the miners of Chili, and the Hudson Bay trappers ate scarcely anything but vegetables, endured privation, withstood hardships, gained the admiration of the world. Converts were being made from all clases. Men of wealth, who had stuffed themselves with roast beef and puddings abounding in animal fat till they were laid up with the gout, were forced to confine themselves to a vegetable diet, when they usually regained their health. People who could not obtain money to procure meat were obliged to live on vegetables. In the majorty of cases they were soon satisfied with the change.

The speaker referred to Professor Beketoff, rector of St. Petersburg university, who declared that the future is with the vegetarians. The reason was plain. Ten vegetarians would live where a meat-eater would starve. The time was soon coming when the population of many countries could not be supported if any considerable portion of the land was devoted to raising animals for food. Animal substances were fast becoming displaced by those made of minerals or vegetables. Geese were once kept partly for the purpose of supplying large quill for making pens. The metal pen has driven out that made from a quill. Not long ago, million of skins where wanted every year for making parchment. Papers made of vegetables has superseded parchment for almost all purposes Gutta-percha and Indian rubber where fast taking the place of leather. Feathers are no longer necessary for filling beds. Brushes are made without bristles, and the best combs are made from other materials than horn.

Tallow was no longer needed for making candles. A much better article could be manufactured from paraffine. Animal and fish oils were not employed for filling lamps. Kerosene has taken their place. The streets and buildings were now lighted by gas made from coal. Gas, electricity, or mineral oil would furnish the light of the future. Butter is giving place to fruit jam and vegetable oils. Vegetable substances are finding their way into cheese. Even animal power was being superseded. Horses made of iron and drawn by steam were transporting most of the passengers and goods in all civilized countries. Gas, wind, water, steam, and the tides were being called into the service of man. Even the saddle horse was fast being displaced by the bicycle and tricycle. Cheap and rapid transportation has rendered it easy to bring the vegetable products of one country to another. Horticulture is making most rapid progress everywhere. The art of preserving vegetables was being brought to a state of perfection.—*Chicago Times.*

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### ATMOSPHERE AND TEMPERATURE.

The proper regulation of the atmosphere as to moisture and temperature, is one of the most important points to be observed in cultivating plants in the parlor or window garden. Plants will not flourish, bloom and be healthy in a dry, dusty atmosphere, even though the best of care otherwise may be bestowed upon them; hence it is that those who attempt to raise plants in their dwellings meet with so little success. There is an immense contrast between the atmosphere of a well regulated green-house and that of an ordinary dwelling. In the greenhouse the air is moist and well tempered to the healthful growth of plants; while that of the parlor or sitting room is invariably dry and dusty, and plants will not flourish in it as they would in the conservatory. If the dwelling be heated by coal, there is more or less gas constantly discharged into the air of the room, which is of itself enough to destroy vegetation, or make it sickly. Houses heated by steam are better adapted to the cultivation of plants. All plants will not flourish in the common temperature of a living-room; some require a low temperature, and others need a warmer one. The following plants require a temperature of from seventy to eighty degrees in the daytime, and fifty-five degrees to sixty at night: begonias, coleuses, calceolarias, bouvardias, ferns (tropical), hibiscuses, poinsettias, tuberoses, heliotropes, crotons, hoyas, cactuses, all kinds, caladiums, cannas, palms, orange and lemon trees, geraniums, etc.

The following will do well in an atmosphere ranging from fifty degrees to sixty degrees by day, and forty degrees to forty-five degrees by night: camellias, azaleas, oleanders, roses, carnations, callas, ivies, abutilons, Hollandbulds lily of the valley, primroses, violets, verbenas, chrysanthemumst, etc. Plants will flourish better in the kitchen, where the steam and moisture from cooking are constantly arising and tempering the atmosphere, that in a dry, dusty sitting room. Hence it is that we find "Bridget" sometimes cultivating a few plants in her kitchen window, that are envied by the mistress of the house, because they are so much finer than those in the parlor or sitting room.

If a pan of water is set upon a stove in a room where plants are growing, it will help to materially relieve the dryness of the atmosphere. But most of all kinds of house plants will do fairly in a uniform temperature, from seventy degrees by day to fifty-five by night. Careful observation of the habits and reqirements of different kinds of plants, as they come under our care, will greatly assist the cultivator, and in a short time he will be so conversant with their various habits as to know just how to properly treat each plant in his collection. Where plants requiring different methods of care and treatment can be grouped together and placed conviently by themselves, it will be well to do so; such a plan will greatly facilitate matters, and the results will prove the advisability of carefully ronsidering temperature and atmosphere.—*American Agriculturalist.*

WORMS often destroy children, but Freeman's Worm Powders destroy Worms, and expel them from the system.

## FOREST CONSERVANCY.

The London *Timber Trades Journal* says:—The report of the Select Committee "appointed by Parliament to consider whether by the establishment of a forest school, or otherwise, our woodlands could be rendered more remunerative," has just been issued, bearing the date of July 24th, and they express the opinion that so near the end of the session it would not be in their power to conclude their investigation. They could only report to the House the evidence already taken, and recommend that another committee on the same subject should be appointed in the next Session of Parliament. It will be inferred from this that no decision was arrived at, and the vexed question of establishing a school of forestry for educating young men exclusively for the pursuit of that science, remains practically in the same state as before.

But although the sittings of the committee were inconclusive, the mass of evidence collected from experienced authorities and from various lands, leaves little doubt on the mind of the reader of the report that the investigation will terminate in any other way than by approving the inauguration of an endowed institution, where forestry can be taught and some sort of degrees or distinctions conferred, as in the schools and colleges for other objects. The committee, under the presidency of Sir John Lubbock, was only nominated on the 8th of July, and it held its last sitting (of three) on the 24th. At the first assemblage only one witness was examined. Mr. W. G. Pedder, head of the Revenue Department of the India Office, through whose hands all the forest papers from India pass, and who has had a good deal to do with forests as Secretary to the Bombay Government.

No attention was paid, it seems, to the forests of India until 1846, when a department was organized in the Bombay Presidency, under the late Dr. Gibson, "principally with a view of providing and securing supplies of teak timber for the dock yards." In 1847 the Madras Presidency followed suit, and the organization extended to Bengal and Burmah, and from that date the systematic conservancy of the forests of India may be said to have begun.

Mr. Pedder found some difficulty in stating what the revenue derived from forests was before that time, but he understood it to be about £50,000. At all events in a year or two it arose to £150,000, and in 1859 to £182,000; the charges were £32,000, and the net revenue £150,000. In 1883-84 the gross revenue was £938,000, the charges were £567,000, leaving net revenue £371,000. The training of Indian forest officials scientifically began about 1863, since which not only has the revenue thence derived greatly increased, but the capital value of the forests has increased still more, chiefly, it is intimated, as a consequence of these appointments. These officials, it appears, were sent to Europe for their training—chiefly to France and Germany, not to England, which was not supposed to be capable of affording them sufficient opportunities of scientific forest learning, and for the last ten years the Indian forest officers have been trained at the Ecole Forestiere at Nancy. The fees, it seems—which cover board, lodging, and the requisite lectures, everything in fact but pocketmoney—amount to £180 per annum; and two years' attendance are thought necessary to make an efficient forester, but only for the higher grades of the service, such as those of "conservator, deputy conservator, and assistant conservator. There is a special school in India for the instruction of the inforior grades." Now it is arranged that "young officers—from five to seven or eight a year—are to be selected, subject to a physical test, by a competitive examination held by the Civil Service Commissioners. The young officers selected are to be sent for two years to go through a course at the Royal Indian Engineering College at Cooper's Hill, and there will receive instruction in mathematics, applied mathematics, geometrical drawing, freehand drawing, surveying, descriptive engineering, inorganic chemistry, geology, French, physics, (laboratory work)," and a good deal besides, including forest subjects, botany, &c., to be studied in Windsor Forest and other places, and a holiday tour in France each year in connection with the school at Nancy. As yet it seems there have been no applications for these honors, but Mr. Pedder remarks that "any young men whose parents will pay the fees will be able to avail themselves of the instruction given in forestry." It is also stated that since 1867, when the system began, to 1885 there have been 511 competitors in India for the forest service, of whom 110 have been appointed, all from the United Kingdom, "excepting one or two Eurasians—East Indians." From this it would appear that every student of forestry at the College, Cooper's Hill, has a fair chance of an appointment in India. The odds are not four to one against them. Here, in England, every competitor for a Government appointment is likely to have twenty to one against him; and who knows how much favoritism besides

The Indian forests, it seems, have disappeared in a remakable manner before the advances of civilization, besides the immense demand created by the railways for timber, especially for fuel, sleepers, etc. Gingera, on the west coast of India, is a small state forty miles long by fifteen to one hundred miles wide, which, except the rice land, was entirely covered with forests as lately as twenty years ago; and seven years later, when Mr. Pedder went there as political agent he found that three-fourths of the forests had been entirely destroyed by the demands of the city of Bombay. The land, apart from creeks, etc., is about 400 miles square. The area of British India, exclusive of native states, is estimated at 865,000 square miles, and of these 48,000 have been brought under conservation as Government forests. Besides 27,000 square miles which are partially concerved as protected district or village forests, about 9 per cent of the whole country has now been reserved as woodland and saved from certain destruction, which is considered a remarkable fact, and greatly to the credit of the Indian Forest Department. At page nine of the report, question 124, we learn that India is almost entirely dependent on wood for fuel. But so was Europe ages ago.

The expense of a school of this forestry in country, as a government establishment, would not exceed, in Mr. Pedder's opinion, £4,000 a year.

At the next sitting, on the 21st July, Colonel Michael, C. S. I., was examined. He had seen seven years service in the early days of Indian forest conservancy, but was driven away by jungle fever, and has paid attention to forest preservation and progress ever since. He stated that he had himself seen "a well known perennial stream dried up completely on the slopes of the Neilgherries by the fact that the timber all around it had been cut for coffee planting.' The circumstances of the timber being cut is but scant evidence that the stream dried up in consequence. Might not the coffee plantation have something to do with it? But all the witnesses appear to have faith in that theory, though the springs do not dry up in those parts of Ireland which have been entirely denuded of trees. And in America the doctrine is often stoutly denied by men whose experience is no less than that of those who maintain it. Col. Michael admits that he never knew the planting of a forest to have restored a spring, though he knew many springs lost from a forest being cut away. There may be other causes yet to seek for an explanation of this phenomenon. This witness thought that the establishment of a school of forestry would be of great advantage to it.

At the last sitting of the Select Committee on July 24th, Dr. Hugh Cleghorn, M.D., F.R.S.E., who was twelve years conservator of the Madras forests, and began when Dr. Brandis began in Burmah, was examined. He has since his retirement from the service in 1869 paid great attention to the subject of forestry both in England and Scotland, and he considered it marvellous that means had not been taken at an earlier period to place our forests under trained officials in order to preserve them.

Dr. Hugh Cleghorn answered very carefully the leading questions that were put to him by the members of the Committee, but through all there was evidently a steady belief in the great advantage this country would derive from a more methodical system of forest conservancy by means of an institution for promoting the knowledge and encouraging the study of forestry.

After him Colonel Pearson was called in, who represented the Indian Government at the school of Nancy for eleven years, and has great knowledge of the system of forest conservancy as practised in France. He also is a believer in what is called an approaching "timber famine," and therefore strongly advocated the promotion of new plantations in Great Britain, and the establishment of a school of forestry. Asked if the great bulk of the woodlands were not in private hands he admitted that they were, which of course would render it difficult for the State to deal with them. But there are hundred of thousands of acres in this country still which might easily be acquired by the Government for planting as being at present entirely unproductive. We could point to thousands of acres of this sort within thirty to forty miles of London, say between Woking and Winchfied on the South-Western Railway line, consisting chiefly of a fine white sandy surface, which seems never to have produced anything since creation, except heather, but in which oak, larch, spruce, Scotch fir, and birch will grow and make fine trees if planted. In bringing these lands under cultivation, or forest culture, employment would be found for an immense number of people, and the wonder is that they have only been tilled in small patches, and by cottagers mostly, but always with success, where the experiment has been made. To bring them into cultivation is estimated to cost about ten pounds an acre in labor and breaking through the hard subsoil, about a spade depth below the surface.

The examiners asked Colonel Pearson if he did not think a good deal of useful forest knowledge might be obtained by two months' attendance at a school of forestry instead of two years which few would be able to avail themselves of except in the higher branches of the employment. He answered that in three months so much information might be acquired as would fit a student for a useful position, but not in less. Lectures might be attended at the discretion of the applicant, who might learn as much as he thought would be useful to him and no more. The institution would probably have to provide for this sort of desultory teaching, much on the system of day boys at a public school who do not obtain the same care in instruction and superintendence as the regular boarders, and pay less for it.

Mr. W. T. Thistleton Dyer, C.M.G., F.R.S., assistant director of the Royal Gardens at Kew, then gave his evidence. This gentlemen's opinions of the great utility of a school of forestry in this country, after the plan of those in Germany and France, coincided with those expressed by the witnesses who had preceded him, and he thought if such school of forestry were established there would be applications, by and by, from our colonies for competent men to investigate to state of their forests, with a view to other regulations in regard to them. The Cape Coloney, from his testimony, has been very prodigal of its forest produce, and the amount of forest which exists there has been reduced to very small limits indeed.

It is a mistake, though, to assume that because a county imports timber from Scandinavia or America it is a sign of a scarcity of timber at home. Timber once afloat can be carried long distances by sea at less expense than to cut and haul a few miles by land, aud the system of the timber-exporting countries is so complete that every convenience and facility for its transference is reduced to the smallest cost, and it is delivered, as it were, at your doors ready for use without any care or personal superintendence of yours till you actually see it there. Set this against going into the woods, if only ten miles away, and cutting down and getting home through every sort of inconvenience a hundred loads of timber which you are permitted to take for nothing where it grows.

The evidence of Mr. Julian C. Rogers, secretary to the Surveyor's Institute, closed the sitting, and was to the same effect as the others.

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## FORESTS OF THE DOMINION.

With the assent of Lord Derby to a suggestion of our Governor-General, the governments of the various provinces of the Dominion were, during the summer of last year, applied to for information regarding the condition of their respective forests. The replies received, which have been submitted to the Imperial authorities, enable us to form a general notion of the state of the forests of the Dominion. The settler and the lumberman has left little of value in Prince Edward Island. In Nova Scotia there was still a fair quantity of hemlock, though in many sections inroads have been made on it for tanning bark. The supply of pine and spruce was disappearing, and much of the heavy birch had been exported in recent years. It was to be regretted that, notwithstanding the manifest decrease in the timber wealth of the province, the farmers and lumbermen did not show the care that was desirable for its preservation. Forest fires, moreover, had done tremendous damage, large tracts of country, once covered with pine, spruce and other growths, being almost entirely denuded. In a report furnished by the ex-Deputy Commissioner of Crown Lands for the province the interesting statement was made that up to 1783 the utmost precautions had been observed by both the aborigines and early French settlers against the destruction of forests by fire, but in that year there was influx of refugees and discharged soldiers, who, not being so careful, lit fires in the woods by which (the weather having previously been remarkably dry)some two thirds of the province were burnt over. Were it not for the devastation occasioned then and by subsequent fire, a great part of Nova Scotia would still be covered with trees. For the protection of the forests it was proposed that stringent regulations against fires and against cutting trees below a certain diameter should be enforced. In that case the ex-Commissioner believed that Nova Scotia would continue to be a timber producing and timber exporting region.

Very little information was gleaned regarding New Brunswick in reply to the questions submitted, but Mr. Ira Cornwall, who represents the province in the United Kingdom, has collected some valuable statistics as to its timber production and industries. The statement concerning Quebec is satisfactorily full. It was pointed out in the memorandum that the portion of the province north of the St. Lawrence contained a considerable quantity of timber, but that the trade could only be carried on with profitable results if due regard was had to the preservation of the forests from waste by fire and otherwise. This was especially true of the white pine, which was the most valuable feature in the trade, and of which there was no new field to fall back upon if the present area was exhausted. In the course of the memorandum reference was made to the good results accomplished by the Montreal Forestry convention of August, 1882, and to the association then formed for continuing the work which it had initiated. The consumption of timber for railway ties, which, in the States was enormous and increasing, had prompted the proposal to plant trees along the lines of railways—the black walnut, on which the Hon. Mr. Joly had successfully experimented, being recommended for the purpose. The institution of Arbor Day, which that gentleman and the Hon. Mr. Lynch had so zealously promoted, was also mentioned as among the signs of progress.

The report on the state of the timber supply and the means to preserve and increase it in Ontario and the other provinces were in most respects similar to those already referred to. The statement of Mr. White, M. P. for Renfrew, was quoted to the intent that the Ottawa district alone lost at the rate of twenty million dollars annually. Sometimes, however, the thinning out of the larger trees by the lumberman gave room for the growth of the younger trees that were to take their places. We have already more than once given summaries of the reports of Mr. Phipps on the forests and forestry movement of Ontario. In Manitoba, where, as we learn from the last report of the Department of Agriculture and Statistics, a forestry association was formed in 1883, earnest efforts have been put forth for the prevention of destruction

by fire. The act passed for that purpose is rigidly enforced. Large quantities of timber were required for the construction of the Pacific railway. A statement had, it appears, gone forth that the forests of British Columbia were within six years of total exhaustion. To this assertion the authorities of the province returned an energetic denial. But there, as elsewhere in Canada, there is evident need of protective measures. A writer in *Chambers' Journal*, from whose article, under the heading, "Are the Canadian Forests being Exhausted?" we have alredy quoted, is earnest in urging the adoption of such provision without delay and hopes that the enquiries already instituted may be taken as an earnest of the Government's intention to take the necessary action. For our own part we have called attention to the subject again and again, but the meeting of the Forestry Convention in New England reminds us that the matter requires to be agitated not once or twice merely, but constantly.—*Montreal Gazette.*

### CREOSOTING TIMBER.

Large quantities of timber are now creosoted at the West, in a special manner for railroad purposes, the effect being to increase the tenacity of the wood for holding spikes, etc, as well as its density and its ability to resist mechanical wear. This is done by means of an apparatus consisting of a boiler-plated cylinder, of a size adapted to the timber; this cylinder is of a strength sufficient to resist 300 pounds pressure per square inch, and has a track extending for its whole length along the bottom, the cylinder's ends being closed by strong iron doors, air and water tight. When timber has been run into the cylinder and the doors closed, steam at about 100 pounds pressure is injected into the cylinder, the supply continuing as required by the nature and dryness of the wood; the steam is then shut off, and vacuum pumps worked as long as any liquids or vapors are obtained, the hot preserving liquid being now run to the cylinder from the reservoir until full. The force pumps are again operated until the interior pressure is some 100 pounds per inch, and kept thus until sufficient preservative fluid is forced into the pores of the wood; the force pumps are now shut off, and the creosote oil or other liquid contained in the cylinder is discharged into a suitable cistern, after which the doors at the ends of the cylinder are opened, and the car carrying the timber or ties runs out.

### IRON AND LUMBER PROSPECTS.

"I see that the Elk Rapids Iron Works have an order from England for charcoal iron," said a reporter for the *Free Press* to a citizen heavily interested in the iron industry.

"Yes, I see. By the way, do you know that Michigan produces more charcoal iron than all other iron-producing states combined? As to prospects, they are good. The fact is, the old truism, 'History repeats itself,' applies to the iron and lumber trade equally with fashions, customs, etc. Have you any idea of the amount of tonnage from Lake Superior the past season? The increase is something remarkable. Now, in the iron trade, the supply had got away down and the demand is growing, and I think will grow for a year or two. In lumber the situation is little different. The demand always exists and always increases in volume. The supply in Michigan is getting toward hard pan, but there is nothing to fear on that score as the whole country north of Lake Superior is one vast forest of lumber. There seems to be a revival in the business all over, and the present condition of iron plants are inadequate the demands of the present, because steel is now made as cheaply as they make iron. Steel is the coming material. It has already come, and to meet the demand the old plants—the old iron mills—must be fitted for making steel. This takes time, and the steel mills already operating will have all they can handle the next year."—*Detroit Free Press.*

A MAN named Grippin found a sum of money on Saturday while unloading lumber from a box car for the Rathbun Company. Is the company shipping money as well as lumber? It would appear so.—*Kingston Whig.*

### LOG TRANSPORTATION.

Almost innumberable methods have been devised by lumbermen for the transportation of logs. Vessels have been built with the supposed special adaptation for the purpose named. Log cribs innumerable have also been devised and patent boom sticks without number have been brought out, and patents secured on most of them.

The question of the log towing successfully is one of the most important for mill men which has ever been agitated, but to none more so than those on the Saginaw river, where there are at present millions of dollars invested in mill property, while the pine hitherto considered tributary thereto is nearing the end and will soon be practically exhausted, except in the case of a few men who have taken time by the forelock and secured a supply for the future. In order therefore to keep this vast outlay of money on the Saginaw river remunerative, it becomes necessary to devise some method by which these vast industries may be kept in motion, because to remove them involves an outlay equal in extent to their almost entire value. Already the Georgian bay country and the upper peninsula are looked to as sources of supply for the future, but the question finally resolves itself into and is dependent on the success or failure of log towing. If a reasonably safe method of transporting logs can be devised, the Saginaw river will long remain the leading lumber manufacturing centre of the country, as it has been for the past quarter of a century.

Cheboygan, Alpena, Oscoda and other points along the Huron shore, are also beginning to look about anxiously for a log supply for the future, and some of the lumbermen have invested extensively in pine lands in the Georgian bay country. With a view of insuring this supply of pine for his mill Mr Gilchrist, of Alpena, has had a barge rebuilt for the purpose of log towing, a description of which is given in the *Argus* as follows:

Gilchrist's new barge, the Michigan, is well worth visiting. She is one of the largest crafts on the lakes. During this summer she has been raised, a new deck and deck beams put on, and when completed she promises to be a stanch craft. She is about 315 feet long and over 40 feet beam, has five hatches which extend the entire width of the deck and one smaller hatch forward. Near the stern is a large boiler, big enough to furnish steam for a good sized steam boat. It was formerly used by propeller East Saginaw, and is to be used to drive the pony engines for hoisting logs, etc. The barge will have four masts. The hatches are big enough to allow a large log to be lowerered into the hold. To cover the hatches requires 2,700 feet of lumber. The Michigan would probably carry from one to one and a half million feet of lumber. The barge will be fitted with a sort of endless chain arrangement for hauling logs from the water on to the vessel, and it is the intention, we believe, to use her to carry logs from the Georgian Bay region to this city, and we sincerely trust she may prove successful and give her enterprising owners profits on their outlay. This bringing of logs from Georgian Bay to be manufactured in the Alpena mills will prove of great benefit to the people of this city and county. The barge is in Gilchirst's boom, being completed.—*Lumberman's Gazette.*

THE United States Consul at Bahia, state that in the whole country of Ecuador therr are only two sawmills, and those small ones, though the quantity of valuable woods is simply enormous along the whole line of coast. Sandalwoods ebony, amarillo, cedar, and many other kinds, some of which are entirely unfamiliar to American dealers in fine woods, are found in great abundance. But it does not seem that the consul's advocacy of the investment of American capital in developing those resources is likely to be soon responded to, inasmuch as equally rich forests are to be found on the Atlantic and Carribbean sea coasts, and thus much more accesible to the markets of the United States.

A MEMORIAL service to the late Sir Francis Hicks was held in St. George's church, Montreal, on Sunday,

### UNWISE BENEVOLENCE.

There is not too much, but too little benevolent effort in our midst; yet a large portion of what there is is wasted by the unwise ways in which it is rendered. The parent who supports his child in idleness when they should be self supporting, or decides everything for him instead of accustoming him to decide for himself, the teacher pours out to his class the information they ought to work to obtain the employer who himself performs or finishes the work that belongs to his subordinate, the compassionate man or woman who gives money, food or clothing to the idle or improvident instead of inducing them to earn it for themselves—any, one in fact, who extends such aid to another as disenclines him for personal effort is actually, the principle of self-help which all admit to be so strong a pillar of our national welfare.—*Ex.*

THE leaf pine timber region of South Mississippi is said to be the greatest country on earth though it may be unconsciously, fighting against in its wonderful climate and water. No case of lung or throat diseases were ever known to exist there. Many scientists and physicians attribute this fact to the vast turpentine orchards and the peculiar health-giving aroma exhaled from the long-leaf pine. The same curative qualities are claimed for Arcachon, a fashionable seaside and forest summer and winter resort, some forty miles from Bordeaux, and much frequented by wealthy Spaniards and Russians.

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would be a truthful name to give to Dr. Pierce's "Golden Medical Discovery" the most efficacious medicine yet discovered for arresting the early development of pulmonary disease. But "consumption cure" would not sufficiently indicate the scope of its influence and usefulness. In all the many diseases which spring from a derangement of the liver and blood the "Discovery" is a safe and sure specific. Of all druggists.

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Ottawa, 1st. Sept., 1885. 3w3

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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., OCT. 1, 1885.*


THE Cudington, Wells & Van Schaick Company, of Chicago, recently purchased 600 acres of pine land on Point river, Marquette county,

THE schooner Onward, bound to Milwaukee with a load of lumber, went ashore at Gill's pier, five miles north of Northport, Mich., during the gale of Sept. 22.

IN order to evade the ten-hour law, Saginaw valley operators in the woods are having contracts printed for more than 10 hours work each day, which they require each man employed to sign.

A MAN named Israel Beaulieu, was killed on September 24th, by being caught in the machinery of Mr. C. Renouf's saw mill at Reviere Trois Destoles, Quebec.

THE Pope estate is one of the largest debtors to the Exchange Bank, indebted to that institution for nearly $100,000. The fine timber limits of the estate situated in Megantic have been bought in by the Bank at Sheriff's sale for $27,000. The limits are said to be worth at least double that amount, and the Bank expects to realize about fifty cents on the dollar on the claim.

AT the annual meeting of the American Forestry Congress the Hon. H. G. Joly, ex-Premier of Quebec, was elected Vice-President. Mr. Joly has taken a deep interest in questions affecting forestry and has done valuable work in the interests of the forests. The Congress did itself honor in electing him to this position. Mr. Joly also read papers on "Forest Economy in Canada," and "Walnut Culture in Southern Latitudes."

AN important sale of limits is reported from Ottawa, Messrs. White, of Pembroke, being the sellers, and Sherman, Lord, Herdman & Co., the purchasers. The price is understood to have been in the neighborhood of $300,000. Timber limits within easy reach are rapidly getting into what may be called "last hands," being eagerly sought after by millmen, who require them for the maintenance of their log supplies.

MICHIGAN will not long continne to be a great lumbering State if the present reckless waste of valuable timber is not soon checked. No effort is made to preserve any part of the standing timber that cannot be worked up into boards for the market, and the consequence is that the quantity has been reduced from 150,000,000,000 feet to 35,000,000,000, nearly four-fifths having been cut. The people of New York State have been aroused to a sense of their folly in allowing their forests to be wantonly destroyed. It is time for Michigan to wake up.—*Toronto Mail.*

## WOOD-WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the U. S. Patent Office, Sept. 15th, 1885, is specially reported by Franklin H. Hough, solicitor of American and foreign patents, 925 F. Street, N. W., Washington, D. C.:

326,280.—Log turner—J. Evered, Duluth, Minn.

326,167.—Saw filing machine—F. M. Sisk, Newman, Ga.

326,243.—Saw gummer and sharpener—S. J. Randall, Moodyville, New Westminster, British Columbia.

326,291.—Saw mill set works—G. Hanson & C. D. Clarke, Massillon, Ohio.

326,305.—Saw set—J. S. Long, Murphysborough, Ill.

326,308.—Saw set—G. Marsh, Mancelona, Mich.

326,164.—Saw swage—W. D. Sherman, Grand Rapids, Mich.

326,360.—Saw swaging machine—P. R. Ward, Quincy, Ill.

326,455.—Saw table gauge—H. T. Rawlings, New Albany, Ind.

326,397.—Saws while being ground, device for supporting—H. F. Campbell & G. H. Mills, Concord, N. H.

326,343.—Sawing machine—W. W. Smith, Boyne, Mich.

326,343.—Stump pulley—H. L. Bennett, Westerville, Ohio.

326,310.—Stump pulley—J. L. Martin, Deckers Point, Pa.

PATENTS ISSUED SEPT. 22.

326,635.—Lumber trimmer—M. Dutrisac, Muskegon, Mich.

326,685.—Saw, insertible tooth—G. F. Simonds, Fitchburg, Mass.

329,438.—Saw teeth, device for inserting—G. F. Simonds, Fitchburg, Mass.

325,907.—Saw tooth jointer and gage—J. Hug, Ripley, N. Y.

326,684.—Saw with insertible teeth—G. F. Simmonds, Fitchburg, Mass.

326,798.—Saw with insertible teeth—J. Smith, New York, N. Y.

326,583—Sawing machine, circular—J. H. Palm, Minneapolis, Minn.

## FORESTRY—LETTER FROM THE SEASIDE.

SIR,—There is a quaint charm about these New England villages, here nestling among, there spreading boldly over, the rolling sands which border this Atlantic coast. Wooden houses, large and small, in endless variety dot hill and dale, interspersed with many an orchard, many a waving grove of pine and oak, many a pleasant road and winding lane, and not a muddy one among them, the sandy sea coast soil is all too dry for that; the rain may fall for three days and then, three hours' sunshine, you may walk where you will dry shod.

There is an air of wealth here, though not of magnificence. There are few farms—great stretches of common or grove isolate many houses; others, in closer companionship, yet always retain generous garden or paddock space around. But of the industries which maintain them or accumulated the fund which now supports them, very few exist here. Sea captains, retired or active, own many; rich city dwellers have erected here many a pleasant residence; here the town-sick summer boarder finds healthy and not expensive retreats; the student may read, row, fish or idle as he lists; and, in fact, of a summer day a vast and busy population are at work doing nothing in boats, on hills, on beaches, or anywhere they fancy.

The small village of Woodsholl proper is a picture Western localities never exhibit. Its brightly painted wooden houses, many, oddly enough, covered with shingles instead of siding from their strong stone foundations to their caves; its rolling surface of greensward, where at every declivity, the wayfarer is aided by steps of massive and time worn granite that the pilgrims might have laid; its great fresh-water ponds for ice, (a contrast to our Toronto mud-bounded reservoirs), faced by firm walls of heavy stone; the embowering branches of linden and elm trees overhead on all the roads, sleepily waving in the afternoon breeze; the quietness of all round, as if the sun rose and set ever on placidity alone, and all that interrupted the unvarying stillness was the plash and agitation of the bright sea-waves which roll up into the harbour, gay with pleasure boats, and glitter far away across the sound, through which schooner and steamer, plying between Boston and New York, continually pass, their sails white against the distant sea.

Here, by the way, busy, yet quite as all the rest, but the shore is the establishment provided by the American Government for hatching the spawn of the codfish, and thence re-populating their fast depleting fisheries. Two large buildings, with immense stone vats for the fish while spawning, are provided, and employ a diligent staff of professors and assistants. Farther on, on the common, is a factory where a valuable manure is made by mingling South Carolina phosphate with the refuse fish (menhaden), from which fish oil has been pressed.

All this country round was occupied long ago by the earliest settlers—the men of the May flower period. This is the "Old Colony" of Massachusetts. This rolling land near the sea was rich, was heavily forested, was cleared, cropped, and re-cropped till its fertility was gone. Long lines of ruinous stone fences, centuries old, recall the period when the soil was worth such careful division. Much of it had long lain idle and barren, the home of a few wandering sheep, in great ranges of wind-swept hills and hollows, with, in sheltered places, some scanty growth of oak and poplar. Just here was peculiarly barren. Twenty-five years since one gentleman, Mr. Fay, began to plant trees largely, and still more largely to sow their seed broadcast. Many followed his example, and groves sprang up in all directions. There are now more than ten thousand acres of pine plantations sown or planted in this vicinity alone, many of them containing trees forty feet in height.

This planting has greatly sheltered and improved the country, and re-settlement—the influx of the class of residents before mentioned, followed fast on the growth of the trees. In one place I was shown what conclusively proved the case of tree planting on hills, to hold moisture. "This twenty acres," said one resident, "which, as you see, is high land when treeless, every spring poured down such floods as filled the deep gullies around. Now that I have had it for years in groves of pines, the moisture is held in the land, and there are no torrents in spring whatever. The water goes, the year round, to norish the creeks." The result of planting in this district is, in fact, that while here twenty years ago was little but a succession of bleak and barren hills, here is now such scenery as my first paragraph described. Nor are the planted groves of small extent. One gentleman showed me eighty, another one hundred and twenty acres, in one block each, planted by themselves, of rich pine plantations, the tree being between thirty and forty feet in height.

What I want to give my readers an idea of is the ways in which this result was secured. Either the seed was sown broadcast on the rough pasture field, or it was sown in the bottom of plough furrows run across the field five feet apart, and covered half an inch, or the small pines were taken less than a foot in height and planted with the spade, five feet apart each way. These methods have each met with excellent success. The land is a light and rather barren sandy loam, much of the same kind as our poorest Ontario soils. As to the kinds used they are the Scottish, Austrain, Corsican, and our own native white and red pine. Planting and sowing are each done in early spring.

There is no reason why these methods should not succeed throughout Ontario. Whoever wants a good plantation along the north or west of his lot, or has anywhere—in gully, in field, or hillside—land which gives little return, could not do better than sow it with pine seed. It is easily obtained, easily sowed, and in a few years the annual thinnings will give all the pine fuel he can use, and sticks for many building purposes besides, while as shelter the trees will be unvaluable. Words can hardly tell the difference in climate obtainable by a thick pine wood along the north and west of a farm. Of course, if the planter be disposed to purchase young seedings (which can be had at less than a cent apiece), he saves some years. But many rough places could be much more easily sown than planted.

R. W. PHIPPS.

## AUSTRALIA.

The monthly circular of Messrs. Lord & Hughes, dated Melbourne, 25th July, 1885, says:—

Since the date of our last report, on the 27th ult., the market for timber and building materials has been unusually quiet, and sales have been below the average of previous months.

Owing to the firmness of holders of Baltic deals, a slight advance on last month's sales has taken place; but flooring and Oregon Timber have undergone no change. At yesterday's sale American lumber sold at improved prices.

Trade from the yard is fairly active, but the demand for consumption is below the average of the previous three months. With the near approach of spring an active demand is expected for every description of timber and building materials.

RED DEALS.—Imports: Nil. The principal auction sale during the past four weeks was on the 17th inst., the cargo ex Mathilde, W S W brand realizing for 11x3, 5½d.: 9x3, 5d. to 4¾d.; 9x4, 4¾d.; 8x3, 7x3, and 7x2½, 4 13-16d. to 4¾d. per foot 9x3. W T W brand, 9x4, 11x3, 9x3, 4⅝d. to 4¼d.; 8x3, 7x3, and 7x2½, 4¼d. to 4d These prices show an improvement on last month's sales.

SPRUCE DEALS.—Imports: 262 pieces. This parcel arrived ex Arklow, from Boston, and was sold by auction on the 14th inst., at 3d. per foot or 9x3.

OREGON TIMBER.—Imports: Nil. There have been no auction sales since the date of our last report. We look for improved prices at first sale.

LUMBER.—Imports: Clear pine, 68,140 feet super; shelving, 358,989 feet super; T. and G. ceiling, 40,902 feet super. The arrivals have been—Arklow, from Boston, and Record from New York.

PITCH PINE.—Imports: Nil.

REDWOOD.—Imports: Nil. Sales privately have been made at £10. The demand is very limited.

FLOORING AND WEATHERBOARDS.—Imports: 1,248,684 feet lineal from United Kingdom, and 9,566 feet from United States. The arrivals have been—Loch Broom, from Glasgow, and Arklow, from Boston. Sales by auction have been parcels ex Blairgowrie and other ships, at following prices:—Red, 6x1⅛ T. and G., at 10s. 6d.; White, 6x⅞, 9s. 3d.; 6x1⅛, 6s. 6d.; 6x⅝, 4s. 10d.; 4-out Weatherboards, 6s.

KAURI PINE.—Imports: 925,679 feet super. The arrivals have been—Parnell and Killarney, from Kaipara, Grasmere, from Wangaroa, and Mercury, from Launceston, with portion of wrecked cargo ex Robbin Hood Sales by auction have been cargoes ex Malay, Mercury (portion of wrecked cargo ex Robbin Hood,) Parnell, Killarney, and balances of hewn logs, ex Claribel, Wenona, and Eillen Donan and Ansdel. Hewn and sawn logs realized from 11s. to 13s.

CEDAR.—Imports: 201,400 feet super. The arrivals have been by coasting steamers from Sydney, and sales by auction have been of various parcels of prices ranging from 43s. to 21s. for logs, and 4¾d. to 3d. per foot super for boards.

DOORS.—Imports: 602. The arrivals have been 500 doors ex Record, from New York, and 102 sugar pine doors via Sydney.

LATHS AND PICKETS.—Imports: Laths, 1,310 bundles; pickets, 1,054 bundles.

SLATES.—Imports: 85,177 pieces. These arrived ex Record, from New York, and were

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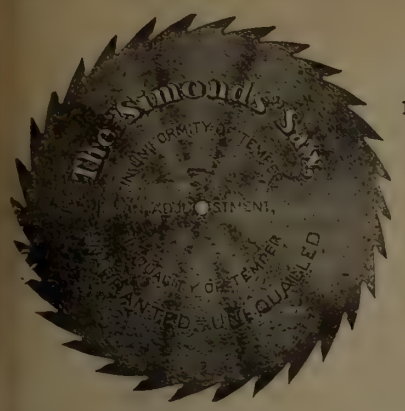


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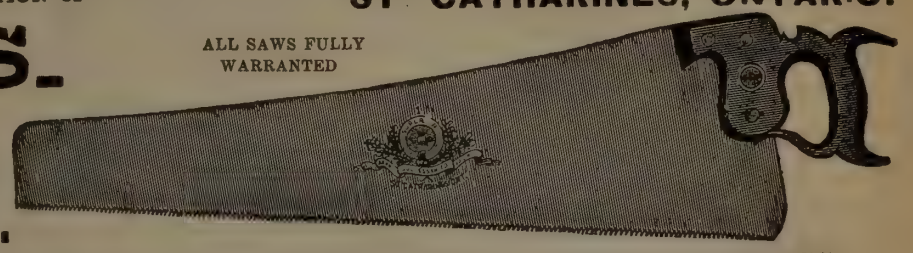

Sole Manufacturers for the Dominion of Canada of the

**"SIMONDS" SAWS.**

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yesterday offered at auction, realizing £9 5s. for 20x10, £13 12s. 6d. and £13 10s. for 24x12, first blue Bangor American slates. On the 6th inst., a parcel of 22x11 blue Bangor Penrhyn slates realized £12 10s. at auction.

PLASTER.—Imports: 400 barrels. These arrived ex Record, and were placed privately at a price withheld.

CEMENT.—Imports: 5,005 barrels. Sales by auction have been a small parcel of Phœnix Portland Cement ex Brittannia at 12s. 9d., damaged cement ex Nineveh at 7s. 3d. to 7s., and 200 casks Krogman's Portland cement at 12s. 9d., ex Hanover. Sales privately are reported at from 15s. to 14s. 6d. for best brands.

GALVANIZED IRON.—Imports: 917 tons. Sales by auction have been confined to a small parcel slightly damaged ex Falkland Hill, Imperial Federation brand, 26 guage, at £16 2s. 6d. to £15 5s. Sales privately have been—Orb brand, 26 gauge, at £18.

EXPLANATION.—Red deals and spruce deals are sold at per foot of 9x3; T. and G. flooring at per feet running; Oregon timber, Redwood, clear pine, shelving, ceiling, per 1,000 feet super; Kauri pine and cedar logs at per 100 feet super; laths, pickets and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

### FORESTRY CONGRESS.

The address of the American Forestry Congress, in reviewing the work already accomplished, points to the formation of forestry associations in six states, the appointment of Forestry Commissions in seven states, the institution of Arbor days in fifteen states and the Canadas under the lead of Nebraska, where 5,000,000 trees were planted the last year, the securing of effective fire legislation in Canada, the preparation of important measures for consideration by the National Congress and the work of the Forestry Bureau of the Agricultural Department. There is no subject upon which more practical interest can be profitably expended than that of Forestry, and it is pleasant to note that something is being done to arouse attention in such a worthy cause, which is beginning to become of paramount importance to the American people.

### FOREST FIRES.

We exclaim loudly and continually against the destruction of buildings and merchandise by fire, amounting to about $100,000,000 per year, and to the national loss it occassions, says the *Insurance Journal*, but our attention is rarely directed to the devastation that is produced by means of the same element in the fine timber of our forests, although the loss is said to amount to treble that of mercantile property. In these forest conflagrations much is to be ascribed to the pipe, the reckless tramp and the worker of deliberate mischief, but the greatest causes of all is the incendiary locomotives of the railroad trains. It is scandalous that the burning embers of these engines should be allowed to pass up the smoke stack with the freedom of the smoke itself, scattering in its course destruction to forests, houses and property, and often imperiling human life, when by as light contrivance that ought to be enforced by statutory provision, this danger can be prevented. In Europe, where the railway system is considerable and the speed of travel is great, such a casualty through the agency of a locomotive is very rare although the course traversed embraces every variety of country. Only last week the forests of New Jersey were in flames, inflicting immense loss upon property owners generally, and several villages would have been destroyed but for the seasonable fall of rain, which arrested the flames. Of course the prolonged and excessive heat of the atomosphere increased the combustibility of the branches and leaves spread upon the ground; but still under these conditions of susceptibility greater care should be taken by the railroad authorities in passing through such ignitable localities. It is said that we are felling timber too rapidly, and that such an unsparing destruction may change a fertile locality into a barren waste, but should there be truth in this alarming prediction, what facility we are affording to this prophetic desolation if we permit the additional devastation by fire of timber valued at $300,000,000 per annum.

### SHARP PRACTICES.

The Florence *Mining News* thus describes the manner in which pine purchasers on the waters of the upper Menominee pick up good belts of pine:—"The companies that own large tracts of pine portion it off in lots. Sometimes you will find one side of a belt of pine all Norway and the other side all white pine and a good deal the best. To buy the best and let the poor alone is the object, and to do this the favorite scheme among buyers is to get a friend to go and take an option on the poor pine. This done and the company misled, the real buyer takes an option on the best pine, and buys it. The friend then throws up his option. Sometimes a lot of good and poor pine is thus divided and the good purchased, while the poor lot is left in the hands of the company. But they are getting 'onto' it now, and it is pretty hard to work."


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world Price 25 cents a bottle.

## Axes & Cross-Cut Saws.

CANADIAN AXES.
Both inlaid and overlaid steels, 10 patterns, from $7.00 upwards per dozen.

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Both inlaid and overlaid steels, eight patterns, from $10.00 upwards per dozen.

SILVER STEEL LANCE-TOOTH CROSS-CUT SAWS.
Warranted to be good temper or will be replaced. Special three square and extra fine cut flat files for these saws.

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Of extra shape and quality. Samples of axes and saws sent to any address on approval and for selection.

**Geo. Stethem**
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A FULL LINE of all Size Single and Double Belting constantly in stock.
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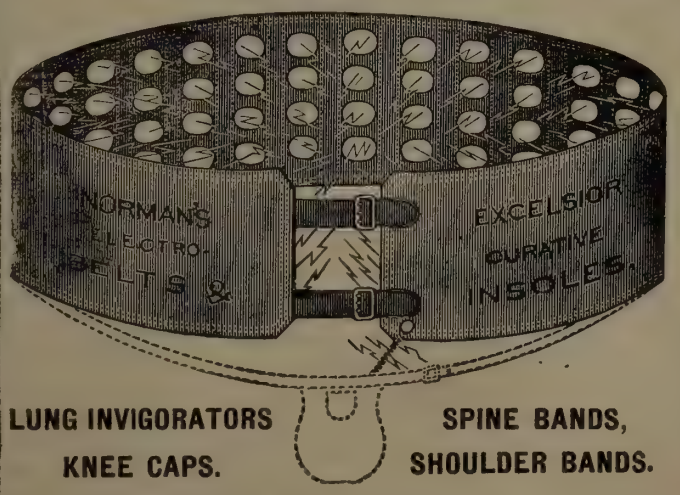


This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
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and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

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4 QUEN STREET EAST, TORONTO.

***N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination***

## AUSTRALIAN BIG TIMBER.

The Australians are very modest over their trees, for they are credited with having some gigantic specimens in the immense forests with which their land is so abundantly covered, about which, were they minded, they could well boast. In the neighborhood of Melbourne some thirty years ago trees abounded by the side of which the biggest pines of Scandinavia would look mere poles. In the Black Forest through which the road, such as it was, to Forest Creek and Bendigo passed, skirting the foot of Mount Macedon, few of the iron and stringy bark and blue gum trees were less than 200 feet before the eye met with a branch. The average height of these forest giants would be equal to that of the Monument on Fish Street Hill, and it would be a long shot to bring down a possum, that the traveller might discharge his gun at, crouching on a branch of one of these giants. From recent accounts we learn that trees of exceptional size have been met with in Australia, and one is described in the pages of an American contemporary as being higher than any known tree in the States, not even excepting the giant Sequoias of California. This Australian monster of the gum species is stated to be 500 feet high, and was found in the Black Range of Berwick, in Victoria. More than twice the height of the Monument, 96 feet higher than the golden cross on the topmost pinnacle of St. Paul's Cathedral, means something that the mind cannot readily grasp. Any one crossing St. Paul's churchyard, and casting his eyes skywards at the glittering ornament crowning the vast dome of that venerable pile, will have some conception of what 500 feet high means, the cathedral ball and cross being some 400 feet above the gazer's head; hence the imagination can better concieve the lofty proportions these denizens of the woods attain. Most of the Australian trees are hardwoods of great strength and closeness of grain and evergreens, shedding their bark, which comes off in long strips.

A peculiarity of the Australian forests is the number of fallen trees that the traveller meets with in his progress through the woods. It was rare to see one of these giants fall, but in the stillness of the night the resounding crash of trees falling, and subsequent reverberation as the trunks reached mother earth, startled the new chum who happened to be camping out on his way through the bush.

The night appeared to be the favorite time for these uprootings. The common notion was that the bush fires were the cause of trees falling, but trees were frequently met with lying on the ground that presented no charred appearance. Another idea, and one which seems plausible, is that the immense weight and size of the trees overpower the sustaining fibres of the roots, so that they literally uproot themselves, and by their leverage topple over. This subject has not been fully treated in books on forestry, but it one well worth studying. There seems nothing else to account for the constantly falling trees in the Australian woods.

It is an anomaly that with trees of monstrous growth, covering a third of the land, the colonists find it convenient to supply themselves from the forests of Europe, situated some 16,000 miles away, and adding 55 a standard freight to the first cost, cheaper than using their own timber. It is not merely the difference between sawing hard and soft wood, however, that makes the latter so much more in demand. Steam overcomes that, but there are hundreds of things in favor of the easier worked wood. Nails are driven much more freely, holes bored, bits cut off, chiselled and jointed, and other hand work which has to be done that would be doubly laborious if native timber were used. The blessings of pine are best appreciated by those who have to use both descriptions.

It rather difficult to class California redwood (Sequoia) amongst the resinous trees, for the simple reason that there is no resin in it; but it certainly is not a whitewood, though having all the attributes of whitewood about it except color. It is a sort of nordescript tree, with a special charter of its own. Some of trees are reckoned by botanists to be over 2,000 years old, while all of them are known to be of great antiquity, which is a questionable virtue in pines.

To what purpose sequoiawood will ultimately be applied the future alone can tell, but at its present price is quite unsaleable. At a cheaper rate it might circulate in the market, and a thousand uses be found for it. Its colour and freedom from knots are its best recommendation, and for thin stuff, such as Venetian blind laths, picture backs, mouldings, skirtings, match-linings, and any inside joiner work, it would answer capitally; for table tops its great widths would be serviceable, enabling kitchen and other tables to be made in one piece, as formerly, instead of out of two, or more, as is now mostly the case. But it must be put on the market at about the price of ordinary deals to make headway.—*Timber Trades Journal.*

## FOREST PRESERVATION.

The American Forestry Congress assembles this month in Boston. The subject of its deliberations is one that ought to receive a greater amount of attention than has hitherto been devoted to it, as the preservation of the forests from destruction and the replanting of large areas which have been recklessly denuded of their trees is of vital consequence to the agricultural prosperity of the country. Statistics which have been gathered from every country in the United States, and verified by the state authorities for the information of the Congress, show that in the union there are 285,000 000 acres of improved land, 445,000,000 acres of forest and 730,000,000 acres of unimproved waste and untimbered land. The forests are disappearing at the rate of 25,000,000 acres a year. The problem practically before the people is to secure the necessary supplies of lumber without denuding the country of its forests and so causing alternate floods and droughts.

The timber supply ought to be perpetual. Judicious replanting should provide for the future and prevent the evil consequences which have been shown to result from the clearance of extensive areas of woodland.

The question is just as pressing with us as with the people of the United States. Exactly the same conditions have been operative here as have prevailed on the other side of the line, and with equally disastrous results. The cutting down of forests has resulted in the drying up of the water courses in the summer months and in heavy floods and freshets in the spring. The Ontario Government have done a good deal to awaken the people to a knowledge of the causes and extent of the evil. But so far all that has been done is to indicate the necessary measures, and perhaps in some measure to stimulate individual action. It is time that some definite plan of dealing with our forests were adopted which would guard against the danger of their destruction and provide for the future requirements by replanting on an extensive scale in those regions where trees are necessary to secure an even distribution of the rainfall —*Toronto Globe.*

## WOOD FOR COACH BODIES.

An English writer, Mr. John Philpson, speaking of the woods used by English coach-makers in building bodies says;

"The principal wood in coach-body making is ash, the chief features of which are strength, toughness and elasticity, which makes it the best wood that can be obtained for withstanding shocks and wrenches. It lacks that property for which oak is unequaled, viz, stiffness or rigidity. The frame work of a body is entirely composed of ash. Elm, another native wood, is used in body-making for boot sides, that are to be paneled, for rockers, etc. It is a cross-grained wood, possessing the property of toughness in a marked degree, and is less liable to split than any other wood with which I am acquainted. It is durable when protected from alternating drought and moisture; but it may be added that such changes will have an injurious effect on any timber.

"Birch, when wide enough, is a suitable material for boot sides and foot boards, but it is not quite so durable a wood as some others. There are several varities in use—Russian American and English. Native birch is the smallest and less pleasing, so far as grain and color are conderned. American birch is probably the best suited to meet the demands of the coachmaker.

"Pines and firs, of which there are many varities, are used for the bottoms, roofs and seats of bodies. They are imported from America, Norway, Memel, the Baltic, etc., and are usually distinguished by their color—whether white, yellow or red—which is dependent on the quantity of resinous matter they contain. For body making the least resinous is the best. and for that reason Quebec pine is generally used.

"Sycamore or plane tree is occasionally used for seats and foot boards or panels. This wood is clean, close-grained, durable, bends well, and in such useful widths as 30 inches.

"For the panels of carriages mahogany is highly esteemed, and deservedly. Its most veluable property is non-liability to twist or to warp, hence its superiority for panels. It holds glue much better than any other wood, and can therefore be canvassed easily and effectually.

Not the least important of its good features is the favorable surface it offers for paint. The mahogany now used by coachmakers is either Honduras or Mexican, and is sometimes called "bay wood." I am inclined to think that the greater portion is Mexican, which runs very wide—three feet and upward—but Honduras is preferred as a mild, fine grained wood, that takes the paint readily.

"Whitewood, from Canada, is a useful timber for covered panels and those underneath, such at the arch panel. It is wide, sometimes three or four feet, and is not difficult to work; the objection to it is its liability to buckle. It is not well namad, however, the best kind being nearer to yellow than white in color. American ash and walnut are also largely used in bodies to be varnished. These constitute the chief timbers used in body making. The are others employed occasionally, but it is not necessary to enumerate them."

## SHIPPING.

The *Timber Trades Journal* of the 29th ult., says:—

"As an instance that foreign shipping is gaining upon that of the United Kingdom, we may quote from statistics of the ships loading in Quebec from January to June inclusive, in 1884 and 1885, as recorded in the Quebec *Chronicle*, a Canadian paper, of the 31st, July:—

'In 1884 there were 147 British ships and 144 of foreign origin which arrived in port, while in the present year the number of British vessels was 124, and of foreign ones there were 144. For 1884 the returns show, besides 147 British, 1 United States, 135 Norwegian and Swedish, 13 German, 2 Danish, 1 Russian, 1 Belgian, and 1 Dutch. In 1885 the returns stand thus:—British, 124; Norwegian and Swedish, 136; German, 5; Russian, 1; Dutch, 1; and Argentine Republic, 1.

"The most of these vessels, however, appear to have loaded for British account, as 164 cleared for the United Kingdom, 13 for the Colonies and 13 for all other countries. In 1884 the British ships loading in Quebec during the first half of the year exceeded the foreigners by 14 vessels. This year, during the same period, the foreign vessels exceeded the British by 20 ships.

"There can be no doubt but that as far as numbers go, the foreign vessels employed in the carrying of produce to our shores as slowly gaining on those sailing under the British flag. We question, however, if the gain to foreign bottoms in tonnage is as yet very important. As steamers take the place of sailing shhips the cargoes increase in size, and though the imports are greatly in excess of a dozen years ago, there are actually fewer vessels employed now than at the period mentioned. Confining ourselves to the timber trade, we can take the average sized steamer engaged in bringing deals to our docks here as about 400 standards against 150 standards the sailing ships

"As a matter of fact, prior to the introduction of steamers in the wood trade we had virtually handed over all the freight business to the Norwegians and Germans, an English vessel with a good cargo in the Surrey Docks between 1870 and 1880 being as scarce as roses in September. The cause for this was not far to seek. The Plimsoll restrictions drove old vessels out of English hands into those of other countries where there was nothing to interfere with their employment; and half the sailing vessels now in the wood trade belonging to Norway are old British ships well known to fame.

"The foreign-going commercial fleet of the United States have had to yield to the competition with countries in which the price of labour was less than half; and vessels to London flying the stars and stripes are things of past history now bringing in the ordinary way about 200 to 250 standards. From this it will be seen that one steamer takes the place of two sailing ships, and these latter nearly all hail from foreign ports, so that we can contemplate an increase in the number of foreign ships without having to regret any lessening in the trade done by our own vessels.

"The present navigation laws and special enactments so hamper the shipping trade here that there would be no possibility of our holding our own against foreigners were other things equal, but while iron and coal continue to be so cheap in this country and iron steamers the class of vessels employed, no fear but what we shall be able to maintain our supremacy."

## MICHIGAN MAPLE.

Sales of hardwood lands, or lands covered with both pine and hardwood, are heard of more frequently now than formerly. A pine dealer of Chicago recently, says our contemporary, remarked that the stumpage buyers had lately turned their attention to hardwood lands and are not slighting them as they once did. The increase in the consumption of hardwoods, and especially maple for floors in housebuilding, has rendered the hardwood lands of north Michigan, on both peninsulas, worthy of consideration as an investment. The foreign ship timber business has brought the elm of that region into the market, and the birch so abundant in many localities is merchantable wood. Then there is some cherry, basswood, ash and beach, all of which can be utilized for one thing and another. When the timber is cut off the land is good for something. Just now, however, maple for flooring is timber most prized. This is because it has been demonstrated that for a reliable and smooth-wearing floor, maple cannot be beaten, especially for business houses and public buildings. In Chicago it is fast becoming established as a favorite. Yellow pine, although an immense amount of it is consumed here, is less prized for flooring, as compared to maple, and even ash, than it was hoped it would be a year or two ago. It splinters sum by wear in spite of anything unless quarter sawed. Whenever a building is burned that has in it yellow pine flooring, it makes a smoke as thick and suffocating as a pile of tar barrels, and covers the firemen instantly with distilled pitch, so that they can do little towards fighting the fire. The burning of the Langham house in Chicago some months since, illustrates this point. Yet this pine makes a good floor and its use will constantly increase. All that is here claimed is that maple will hold its own in competition with yellow pine, and will be rather more esteemed by architects and builders.—*Lumberman's Gazette.*

## Piling Hardwood.

Large quantities of well manufactured hardwood lumber are ruined by a lack of knowledge as to piling. The observance of the following rules will assist in seasoning so as not to sacrifice its brightness. The sticks, or crossers, should always be placed exactly over each other, and never more than four feet apart; the crosser on the front of the pile should be placed about one inch from the end of the board, as that it will allow sufficient space for the dampness to collect, and in the process of drying the boards will not check. The entire pile should be a little lower at the back than at the front, to allow rain to follow the inclination. It is better to stick all hardwoods in six foot piles, with a space of at least one foot between, which allows a free circulation of air, and prevents the lumber staining.

THE Messrs. Rathbun's late purchase in Campbellford is already being a help to the place. There are now 23 men employed on the premises, and about $225 is paid out for wages weekly. Another year, no doubt, their operations will be enlarged.—*Herald.*

# Chips.

THE Rathbun Company have established a lumber agency on Wolfe Island and appointed Mr. Thos. Hogan as agent.

THE New Brunswick and Nova Scotia Land Company's timber licenses on the Keswick river, sold on the 1st, Sept. for $7,000.

LETTERS patent have been issued incorporating the Henderson Lumber Company of Montreal, with a capital of $100,000. The parties interested are Messrs. D. H. Henderson, Norman Henderson, Chas. H. Walters, Selkirk Cross and A. W. Henderson.

UP to September 1st, buildings to the number of 165 had been erected in Montreal, this year, at a cost of $602,805. Several fine business structures and rows of costly residences have been erected. A considerable amount of building of a high class is now in progress.

ON Wednesday evening Messrs. A. & P. White, of Pembroke, sold their Mississippi limits to Messrs. Sherman, Lord & Hurdman. The price received is said to be $250,000, the plant to be taken at a fair valuation. This is one of the largest sales that has been made this year.—*Pembroke Observer.*

THE English Lord Chancellor deciding a case which covered $24,000 worth of fine larch trees which had blown down ruled that if any trees had been entirely severed, even though some of the fibres were covered with earth, they would belong to the executors, but so long as the tree remained attached to the ground by ever so slender a fibre, it was real estate, and went with the land to which it was attached.

A DESPATCH from Chicago recites that Miss Nellie Dean, daughter of a millionaire lumber merchant of that city, has created a sensation by going to work in a spinning mill at 60 cents a day. It seems her father offered to give her a dollar for every cent she earned. It is not likely that Miss Nellie Dean's action will have any marked effect on the labor market, and as she receives $60 60 per day, she may be regarded as in very good luck.

AN English journal, commenting on the fact that Great Britain, in its colonial dominions, possesses 340,000,000 acres of forests, and whose imports of forest produce are estimated at $150,000,000 per annum, says protection is made against fires by forest roads and fire-breaks, and by rewards for extinguishing fires One of these fire-breaks in an Indian forest in Scinde is 174 miles long and 100 yards wide.

A DESPATCH from Ottawa on Sept. 18th says: Wages for shantymen are decreasing here, a fall of two dollars per month having taken place within the past week. This arises from the fact that firms intend making a large curtailment in their cut this coming winter, and consequently will require less men for operations, and second, a general exodus of shantymen from the Lower Province has lately taken place to Ottawa and vicinity on account of the reported good wages.

IN some tests made with small squares of varioues woods buried one inch in the ground, the followjng results were noted: Birch and aspen decay in three years; willow and horse chestnut, in four years; maple and red beech in five years; elm, ash, horn-bean and Lombardy poplar, in seven years; oak, Scotch fir, Weymouth pine and silver fir decay to a depth of half an inch in seven years, larch, juniper and arbor vitæ were uninjured at the expiration of seven years.

A PRIVATE note from a lumber firm at Ottawa, Ont., explains that possibly the cause of the activity in the demand for English deal, this season, was in the alleged attempt of parties to control the market by making heavy purchases; in other words, it was thought to create a corner in deal. These heavy purchases stiffened prices, and stimulated production. It is likely that the unusual demand for deal in northern Michigan, this year, was the effect of the same cause. The call for deal also tended to strengthen prices of high grade lumber, throughout Canada, for American export.—*Northwestern Lumberman.*

### A SMART DRUMMER.

"I'll tell you a good thing," said the Iowa dealer from Fort Dodge who came in "just to have a chat." "It illustrates how green a drummer sometimes is. A man from Wisconsin, say Oconto, for instance, sold a yard man in our town a load of cedar posts. There were 633 posts all told, the price was ten cents apiece, and the amount 63.30. The freight bill was $69.42 which our lumber dealer paid. He then asked the Wisconsin post dealers to remit him the difference, $6.12, and they would be square. The Wisconsin men went to talking about the pay for their posts, but our townsman said he owed them nothing, but that on the other hand they owed him. He had bought the posts delivered. An attorney was consulted by the Wisconsin gentlemen, but he told them they had no case. The drummer, I suppose, knew a cedar post when he saw it, but it probably did not occur to him that the railroads make any charge for hauling."—*Northwestern Lumberman.*


**"I Don't want Relief But Cure,"**

is the exclamation of thousands suffering from catarrh. To all such we say; Catarrh can be cured by Dr. Sage's Catarrh Remedy? Your danger is in delay. Enclose a stamp to World's Dispensary Medical Association, Buffalo, N.Y.

**An Important Arrest.**

The arrest of a suspicious character upon his general appearance, movements or companionship, without waiting until he has robbed a traveller, fired a house, or murdered a fellow man, is an important function of a shrewd detective. Even more important is the arrest of a disease which, if not checked, will blight and destroy a human life The frequent cough, loss of appetite, general languor or debility, pallid skin, and bodily aches and pains, announce the approach of pulmonary consumption, which is promptly arrested and permanently cured by Dr. Pierce's "Golden Medal Discovery." Sold by druggists.

**Catarrh—A New Treatment.**

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still, No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1yl22.

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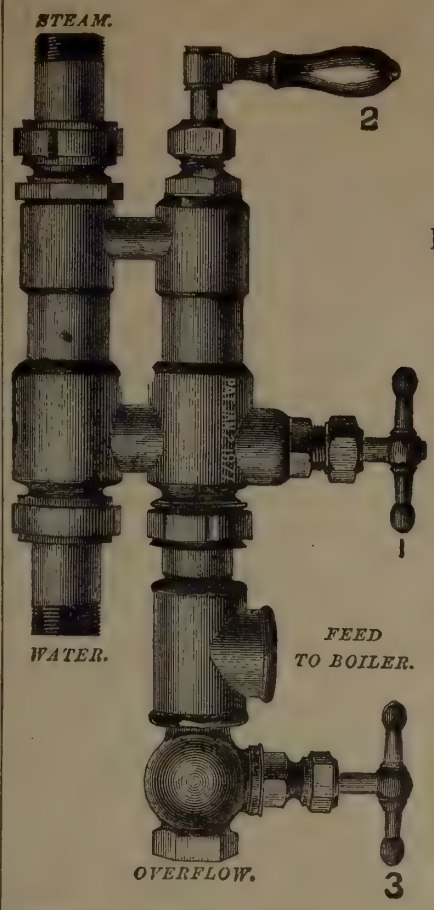


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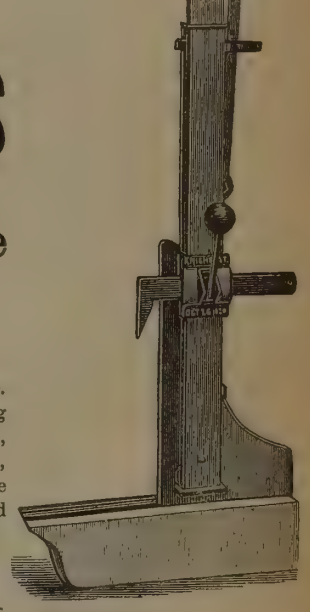

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For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.

Manufactured by HUGH GIBSON, CHATHAM. EXCELSIOR DOG.


## Auction Sale of Timber Berths.

DEPARTMENT OF CROWN LANDS.
(WOODS AND FORESTS BRANCH.)

Toronto 10th August, 1885.

NOTICE is hereby given that certain territory on the North Shore of Lake Huron will be offered for sale by Public Auction, as timber berths, at the Department of Crown Lands, Toronto, on Thursday the Twenty-second Day of October next, at one o'clock p. m.

B. PARDEE,
*Commissioner.*

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and condition of sale, will be furnished on application personally, or by letter to the Department of Crown Lands, where also maps of the territory can be obtained.

*No unauthorized Advertisement of the above will be paid for.* 4L17


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# Market Reports.

## MONTREAL.

*From Our Own Correspondent.*

SEPT. 25.—Business in the yards is of a very small character and likely to continue so for some time, but prices continue steady and firm. Stocks are only moderate which tends to firmness. No improvement is looked for for some time to come. We still quote prices in the yards as follows :—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 22 00@24 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Bass, " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@22 00 |
| Hard Maple, ₱ M | 25 00@30 05 |
| Lath, ₱ M | 1 60@ 1 70 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

SHIPPING.

There is no improvement on the slackness noted in this branch of the trade two weeks ago. Freights continue steady at late rates, but the demand for room is small. The recorded shipments for the past two weeks are as follows :—BK Ella Stewart, for Buenos Ayres, 615,844 ft. pine lumber; SS Oregon, for Liverpool, 5,676 deals and 9,704 boards ; SS Dominion, for Bristol, 7,767 deals; BK Cathelea, for Buenos Ayres, 311,299 feet pine lumber; SS Lake Winnipeg, for Liverpool, 4,254 deals and 1,630 boards ; SS Cynthia, for Glasgow, 2,168 deals ; SS Lucerne, for London, 7,380 deals ; SS Ben Hope, for Liverpool, 7,281 deals and 13,975 ends ; BK Scotia, for Buenos Ayres, f.o., 545,898 feet pine lumber ; SS Mayo, for Liverpool, 18,556 deals, 4,130 ends and 10,264 boards ; SS Sarnia, for Liverpool, 33,534 boards and deals ; BK Mile, for Buenos Ayres, 620,596 feet pine lumber ; BK Minie Carmichael, for Buenos Ayres, 803,372 feet pine lumber ; SS Hibernia, for Glasgow, 14,392 deals.

LIVERPOOL MARKETS.

Our latest advices state that there has been a fairly large consumption, but no improvement to note in prices. There have been private sales of St. John spruce deals at £7·5s. per standard ex quay, and £6 per standard c.i.f. and of Halifax at £6 ex quay and £5 16s. 3d. c i.f., and sales by auction of St. John spruce deals averaged £6 7s. 6d. to £6 10s. per standard.

CORDWOOD.

Wood is beginning to move a little better, owing to the cold weather, but it is not expected there will be much of a rush except for small quantities for some time to come. We quote at the wharves and railway station ex cartage as follows :—

| | |
|---|---|
| Long Maple | $ 5 00 |
| Long Birch | 4 50 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## TORONTO.

*From Our Own Correspondent.*

SEPT. 24.—During the progress of our Industrial Exhibition trade at the yards flattened right out, but since its close it has resumed its normal condition, and all the dealers claim to be doing a fair trade and the remainder of the season promises to be a busy one.

One peculiar feature of the lumber trade at the present time is, that although it is well established that the stock on hand at the mills is fully 40 per cent. less than at this same period of last season, and fully that much less in stock here, yet there in no advance in prices. I can hardly concieve, however, that this can continue out till the end of the season. If the winter should, however, set in early present low prices may continue in view of the large stock of logs likely to be got out during the coming winter.

The railroad companies complain loudly of the dull state of the lumber traffic, and are competing for the trade of the Georgian Bay district. Lumber intended for export can be placed on dock here from the above waters at about one half the amount charged on lumber for local consumption. It is no doubt highly to be desired that cheap rates should be given to encourage the export trade, but it is not exactly comforting to consumers now bearing the burden of taxation, incurred largely by reason of the large bonuses granted in times past to further railway extension. The fact of so great a discrimination in rates is entirely outside of reason, yet there appears to be no help for it.

Basswood is dull of sale, and but little is being now brought to market. Usually this class of goods have commanded ready sale and fair prices, but the supply is now in excess of the demand. Shingles are slightly lower and can be procured readily by car load here at $2.40 for XXX, 16 in. Lath remains about the same, say $1.90 by car load. Quick sales can be made of birch squares, if manufactured properly with all hearts out. Common pine stocks and sidings have moved off more rapidly during the last week.

Shipments over our docks are slow and small in amount, due largely to the fact that there is not much lumber such as is in demand ready to ship.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅜ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₱ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of Sept. 26th says :—The frequenters of the market docks may have this week thought the port receipts were light, because on no day of the six has there been a crowd of loads on sale. But the fact is that receipts have been heavy, 197 cargoes having passed up the creek. The condition of the market has had this peculiarity ; while there have been a number of daily offerings and sales, there has been no bunching, and no carrying over of loads from day to day. Even the great northeast gale of Monday and Tuesday failed to rush in the usual crowd of sail vessels. On Monday morning there were several steam barges at the docks and a number of sail vessels, but the offerings were taken care of the same day. Since then arrivals have been stringing along comfortably, and the commission men have had no difficulty in placing the lumber.

More dry inch lumber is coming than a short time since. The inquiry alternates from boards to strips, the call for strips predominating. Prices on No. 2 and medium stock remain about the same as hitherto quoted, and No. 1 is fully as firm as it has been. Fair medium stock sells at about $13 a thousand, good medium at $14 to $15, and straight No. 1 at $17 and sometimes $18. All these figures have been realized this week in actual sales.

Dimension is not crowding the market, though some is offered each day. The yard men and commission dealers do not agree this week about the prevailing price of piece stuff. For once the yard dealers place the price higher than the commission men. The former say that short green piece stuff is selling at $9, and the commission men claim but $8.87½ as the maximum price. The motive of this strange difference of opinion may be the desire on the part of the wholesalers to bring in another big fleet so as to soften the market, and on the part of the commission men to keep back shipments, so that they will string in as they have been lately doing, and there will be no overcrowding of the market. It is plain, however, that the price of dimension is stronger and a little higher than it was two or three weeks ago, and that the tendency is to further strength.

It is probable that $9 a thousand will be the acknowledged price within a week or two. It is evident that the manufacturers will not force dimension on the market again this season, at the peril of breaking down prices. They will let it go forward just fast enough to supply a healthy demand.

Shingles are arriving rather more freely than lumber, and cargoes stay longer on the market. Yet the commission men are trying to realize a little more money for shingles, and talk about an advance of 2½ cents a thousand. There is nothing sufficiently certain about this, however, to make it necessary to change quotations.

Cedar shingles are scarce, and prices are well maintained. Many more cedar shingles could be sold than are in supply. Manufacturers are taking increased pains with this kind of shingles, and consumers are appreciating the improvement. Within the past year there has been an increase in the demand, which is doubtless the reason why the supply is now short. Cedar shingles that sold in the spring for $1.60 to $1.65 a thousand, now bring $1.75.

Lake rates are weak, and nominally $1.25 from Muskegon, Ludington, White Lake and Grand Haven, and $1.37½ from Manistee. It is probable these figures are shaded a shilling, however, by rebates, or otherwise.

Quotations on lumber and shingles are as follows :—

| | |
|---|---|
| Dimension, short, green | $ 8 78½@ 9 00 |
| " long green | 12 00@14 00 |
| No. 2 boards and strips | 10 00@11 50 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@18 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 1 65@ 1 80 |
| " clear | 2 15 |
| Lath | 1 25@ 1 30 |

AT THE YARDS.

There is a new note to be head in the lumber district. Dealers are actually acknowledging that trade is good. Even the majority of them are doing this, including men who make it a matter of custom, almost principle, to grumble when there is the shadow of a reason for it. This change of mood has come upon the trade within a week ; why is not especially clear, as trade has been fair since August 1st, though as a matter of fact there is a heavy volume of lumber moving out, and orders are coming in with a briskness not before seen this season. A cursory observation shows the extent of current business. Cars are seen in all the yards, with lumber going into them. Every wagon in the district has a load on it, or is waiting for a load. The planing mills are crowded with work. The trains pulled out are long, and have two engines tugging at them instead of one, as a short time since. Larger orders are being received, and, better than all else, the merchants begin to talk stiffer prices on some sorts, or no sale. The feeling in every respect is better than it was.

Receipts of lumber, shingles, etc., from Jan. 1st to Sept. 24th as reported from the Lumberman's Exchange :—

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 65,017,000 | 46,684,000 |
| 1884 | 59,007,000 | 21,871,000 |

FROM JANUARY JAN. 1, 1885, TO SEPT. 24, 1885, INCLUSIVE.

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 1,235,964,000 | 523,002,000 |
| 1884 | 1,373,625,000 | 637,311,000 |
| Decrease | 137,661,000 | 114,309,000 |

STOCK ON HAND SEPT. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 572,910,657 | 607,163,629 |
| Shingles | 341,905,109 | 352,022,268 |
| Lath | 60,717,504 | 59,225,900 |
| Pickets | 2,155,789 | 1,305,699 |
| Cedar posts | 901,563 | 483,069 |

LAKE RECEIPTS FROM JAN. 1 TO SEPT. 20.

| | |
|---|---|
| Lumber | 1,073,040,000 |
| Shingles | 472,828,000 |
| Lath | 34,452,000 |
| Wood, cords | 21,245 |
| Posts | 2,747,683 |
| Railroad ties | 1,369,305 |
| Slabs, cords | 24,836 |
| Bark, cords | 17,962 |
| Poles | 45,700 |
| Spiles | 2,000 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@13 00 |

## BUFFALO.

We quote cargo lots :—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## ALBANY.

Quotations at the yards are as follows :—

| | |
|---|---|
| Pine, clear, ₱ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1½ in. siding, select | 40 00@43 00 |
| Pine, 1½-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black waluut, ⅞ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ⅞-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅞-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₱ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

There is no change in quotations ; the demand is exceedingly light for this time of the year, and the market is considered very dull. Dealers are not purchasing the usual quantities. Through the surrounding country yards are very poorly supplied. Lake and canal freights are yet at summers rates :—

| | |
|---|---|
| Lake, Toronto | $1 00 |
| " Port Hope, etc | 80 |
| Canal, Albany | 1 40 |
| " New York | 1 90 |
| Receipts to date | 124,000,000 ft. |
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1½x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1½, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## LIVERPOOL.

The *Timber Trades Journal* of Sept. 12th says :—During the past week a rare fleet of timber laden vessels have arrived, notable amongst them being several large steamers with cargoes of deals from North America, and pitch pine timber from the Southern States. The timber docks are now full to their utmost capacity, and many vessels are waiting in the river for their turn for discharging berths. Under these circumstances there is no reason for surprise that the market should show a downward tendency in nearly every branch, especially when no inconsiderable quantity is brought forward week by week for sale by public auction, and forced off in many cases practically without reserve. Of course much of this is due to the fact that the cargoes are principally consigned by the shipper for realization, and in the present state of the trade buyers are by no means easy to find who will buy cargoes of 1,000 to 1,500 loads in one line, so that really the consignee has no alternative

left but to sell if possible in the way which is most likely to bring him the most satisfactory return and least risk.

On Friday last, the 4th inst., Messrs. Price & Pierce offered the large cargo of sawn pitch pine timber and deals, per Architect (s), from Pensacola, and met with a fair measure of success, so far as regards the disposal of a fair amount of it, but for about 1,200 logs of small dimensions there was no bid, and that quantity was withdrawn. The auctioneer, Mr. Thomas B. Neale, was evidently desirous to meet the market whenever competition would warrant it, but, as in the case of recent public sales, the company was apathetic, and showed no great desire to bid for anything but what they needed for immediate orders. The Ottawa bright pine boards and deals were withdrawn.

### GLASGOW.

The *Timber Trades Journal* of Sept. 12th says:—At the auction sale of American timber and deals held at Greenock on 3rd instant there was a quiet demand, and only a small proportion of the goods catalogued changed hands, prices as noted below.

As will be observed from the list of arrivals, there has been a fair import of timber at Greenock during the last few days.

AUCTION SALES.

On 3rd inst., at Greenock, Messrs. Allison, Cousland, & Hamilton, brokers:—

| | | Per c. ft. |
|---|---|---|
| Quebec 2nd waney boardwood— | | |
| 40 logs | 19 in. av. sq. | 1s. 7d. |
| Do. deck plank yellow pine— | | |
| 51 logs 60 c. ft. avg. per log | | 1s. 3d. |
| Do. square board yellow pine— | | |
| 34 c. ft. avg. per log | | 1s. 5½d. |
| Do. 1st yellow pine— | | |
| 42 c. ft. avg. per log | | 1s. 5½d. |
| Do. yellow pine— | | |
| 42 logs 35 c. ft. avg. per log | | 1s. 1½d. |
| Hewn pitch pine— | | |
| 101 c. ft. avg. per log | | 1s. 1¾d. |
| Quebec 3rd pine deals— | | |
| 12 ft. | 11×3 | 1s. 1½d. |
| Do. 4th pine ends— | | |
| 6 to 8 ft. | 7/20×3 | 9¾d. |

### CARDIFF.

The *Timber Trades Journal* of Sept. 12th says:—During the past week the arrivals have been rather heavy. We have had one deal cargo from Pensacola, one of props from Miramichi, two from Montreal, two from Riga of timber and lathwood, one pretty large cargo from Norway of mining timber, a deal cargo from Mesane, two from Archangel, two deal cargoes from St. John, one from Soderhamn, and one on Wednesday from a Canadian port, so that importers have their hands full at the present moment in receiving. Prices we have been unable to ascertain, but we have been expecting to hear of some little improvement, seeing that the iron market exhibited a better tone, and, as a rule, this influences considerably the coal and timber trades. As yet the coal trade has not felt it, as a good many of the colleries are still working half time, and this has brought down the prices for mining timber and props.

The building trade continues brisk, and apparently the stocks will be noticeably less this year than last; nevertheless their appears to be no anxiety on the part of our merchants to make any bids for forward tonnage either for Baltic or Canada loading, and this would give the impression that they do not anticipate any rise in prices.

### TYNE.

The *Timber Trades Journal* of Sept. 12th says:—The arrivals of wood goods during the past seven days have not been large nor such as to call for any special remark. One large cargo of Quebec timber and deals and one cargo of pitch pine timber from Doboy are the largest There are two cargo staves, four steamers from Christiania and Gothenburg with cargoes of various descriptions of wood goods. Props do not figure largely amongst the arrivals, a fact which, with the present heavy stocks, is agreeable, and it would be well if the same remark could be made with regard to staves as well as props for several weeks to come.

Trade does not show much sign of improvement so far, nor is there anything in the near prospect to hold out hopes of any speedy change. Shipbuilding is as quiet as can well be imagined, and in the various works and colleries no extensions take place, using of timber being restricted to such repairs as are absolutely necessary. Housebuilding is fairly good on the outskirts of the town, principally the better class of workmen's dwellings being erected.

### LONDON.

The *Timber Trades Journal* of Sept. 12th says:—The imports to London for the week ending the 9th inst. account for no less than 52 vessels of one sort and another. Amongst these, we note, are 10 from Quebec, including a Montreal cargo, besides 4 from the spruce ports, 3 being from Metis; so that we have rather a biggish fleet from the Atlantic side. Four of the Quebec cargoes went into the Surrey Commercial Docks, the rest being distributed over the other docks in the river, two going into the Millwall, and the Svea, one of the fleet being berthed in the Regent's Canal Dock. Six of the arrivals are from Sweden, an unusually small import at this time of year from the Gulf of Bothnia ports. We observe there is only one cargo of flooring boards, and a single pitch pine cargo. From the Russian ports we have five cargoes from Petersburg to chronicle, and three from the white Sea, besides a couple of Finish cargoes which will about represent the bulk of the week's import. Last year about this time we had to chronicle a fleet of 98 vessels to this port, presenting a marked contrast to the to the present record. It is true this large fleet came a week later than that with which we are comparing it, but we doubt very much if next week the imports will approach anything like that number of cargoes. We note that 34 of the present recorded fleet are steamers against 18 sailing ships.

There seems to be nothing fresh in the market, and the causes for any advance in prices have to be sought in the direction already pointed out.

The season is slipping away, and there seems every reason to expect that the shippers on the Baltic side will adhere to their expressed resolution in selling to contract only, and that the market will not be further depressed by goods sent for realization, an event that would be simply disastrous while things continue in their present state.

We are glad to note that flooring prices are slightly better; the cheap rate at which stuff could be secured has undoubledly stimulated the demand, and houses in carcase, that had been almost neglected, the prospect of their being tenanted on completion not being sufficiently encouraging to spend much money on them, are now being finished, the cheapness of wood and the accommodating terms on which it can be had leading to this result.

It wants very little to change the current of trade from its present lethargic state to one of more activity, and a moderation in the supplies will assist in bringing this about.

There was a much better gathering of the trade to countenance the Thursday's proceedings than there was at Wednesday's, and the bidding also struck us as being somewhat better sustained, although in the majority of instances the same low prices ruled.

Bidding for the Quebec parcels partook of the same character thar we have described; when regulars of prime quality came under offer prices took a proportionately high range, while for the oddments in batten sizes and inferior parcels values ran in the ordinary groove. Spruce prices showed a slight shade of improvement, and the demand for well-manufactured and clean white deals certainly seems more active. There was considerable bidding for some of the reserved lots, and several parcels changed hands. This of itself is a favourable indication, and we can look at it in no other light.

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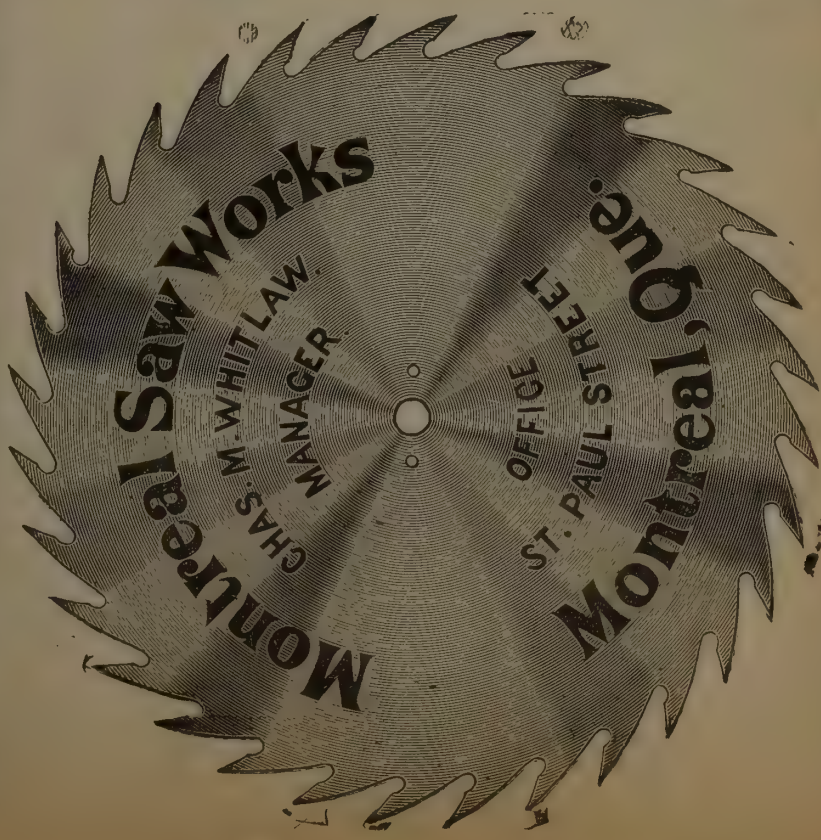


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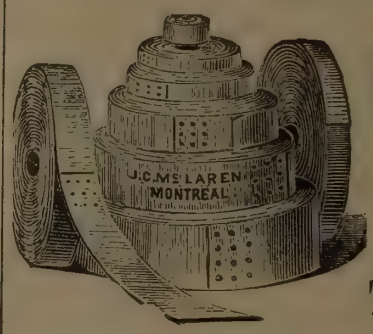


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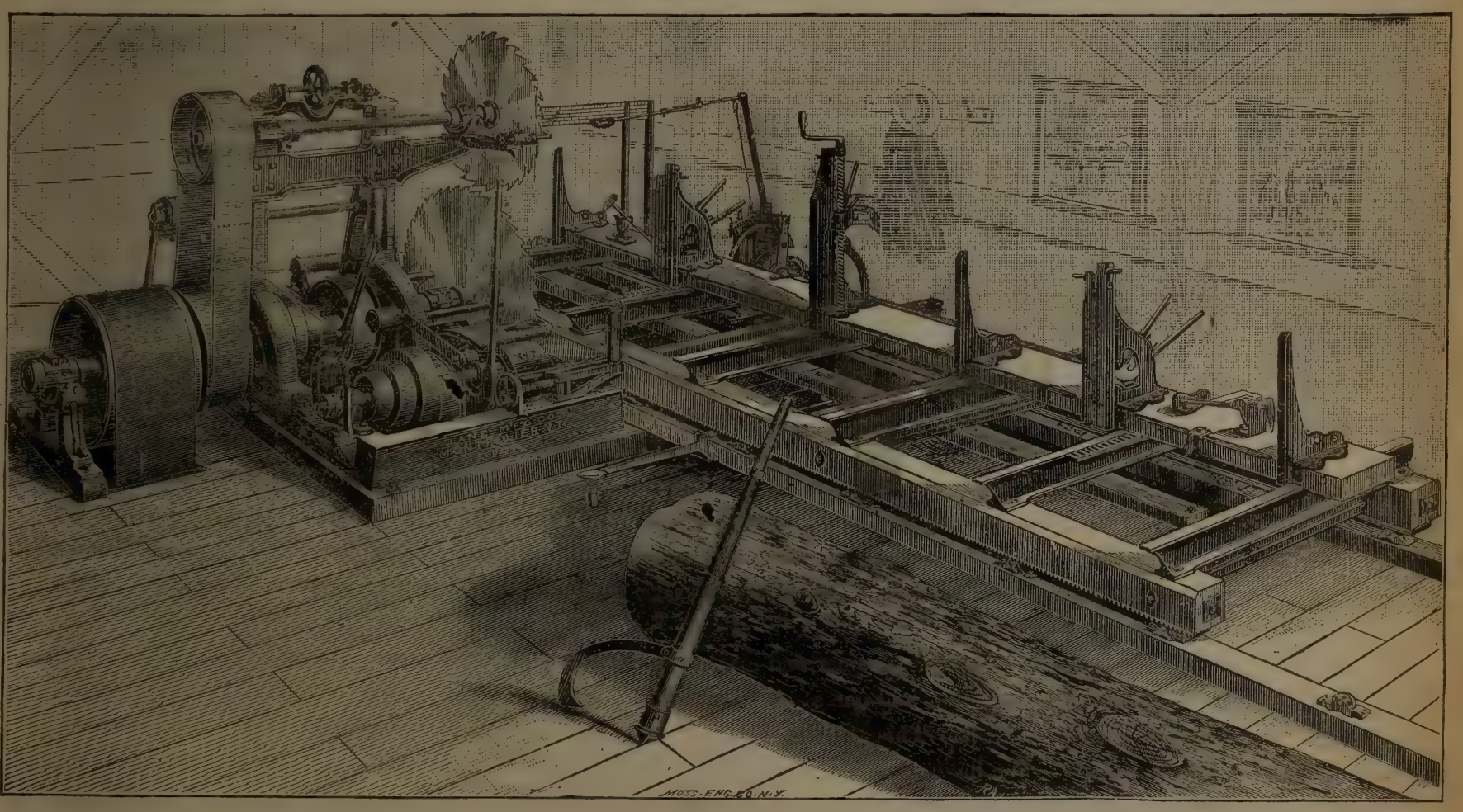

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# PATENT OSCILLATING TWIN ENGINE
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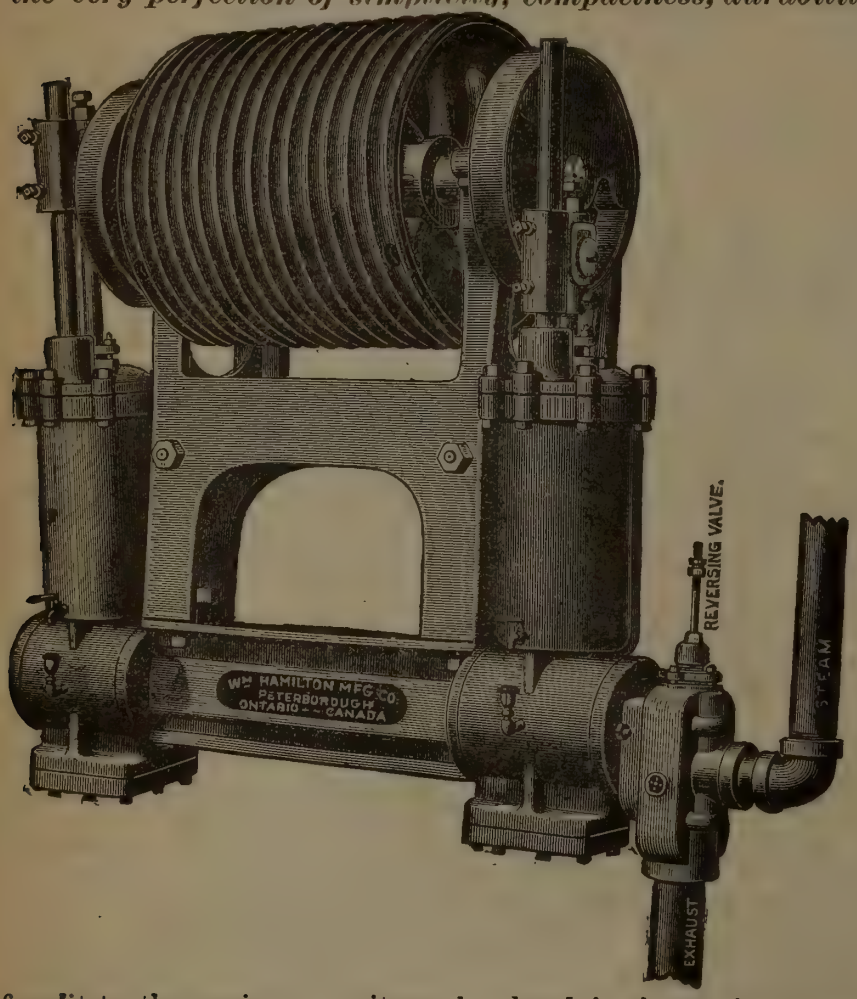
***This Engine has practically but two moving parts, aside from cranks and shafts. The whole array of eccentrics, valves, valve rods, connecting rods, cross heads, slides, levers, rock shafts, bell cranks, etc., is done away with, and the very perfection of simplicity, compactness, durability and cheapness attained.***




The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoupling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

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☞ ***We guarantee this to be the best Mill of its kind got up, and would ask any one wanting a good Band Saw-Mill to communicate with us. We would also call the attention of Mill Men to our new IRON GANGS, CIRCULAR MILLS and MILL MACHINERY. For further information, prices, &c., address the Manufacturers,***

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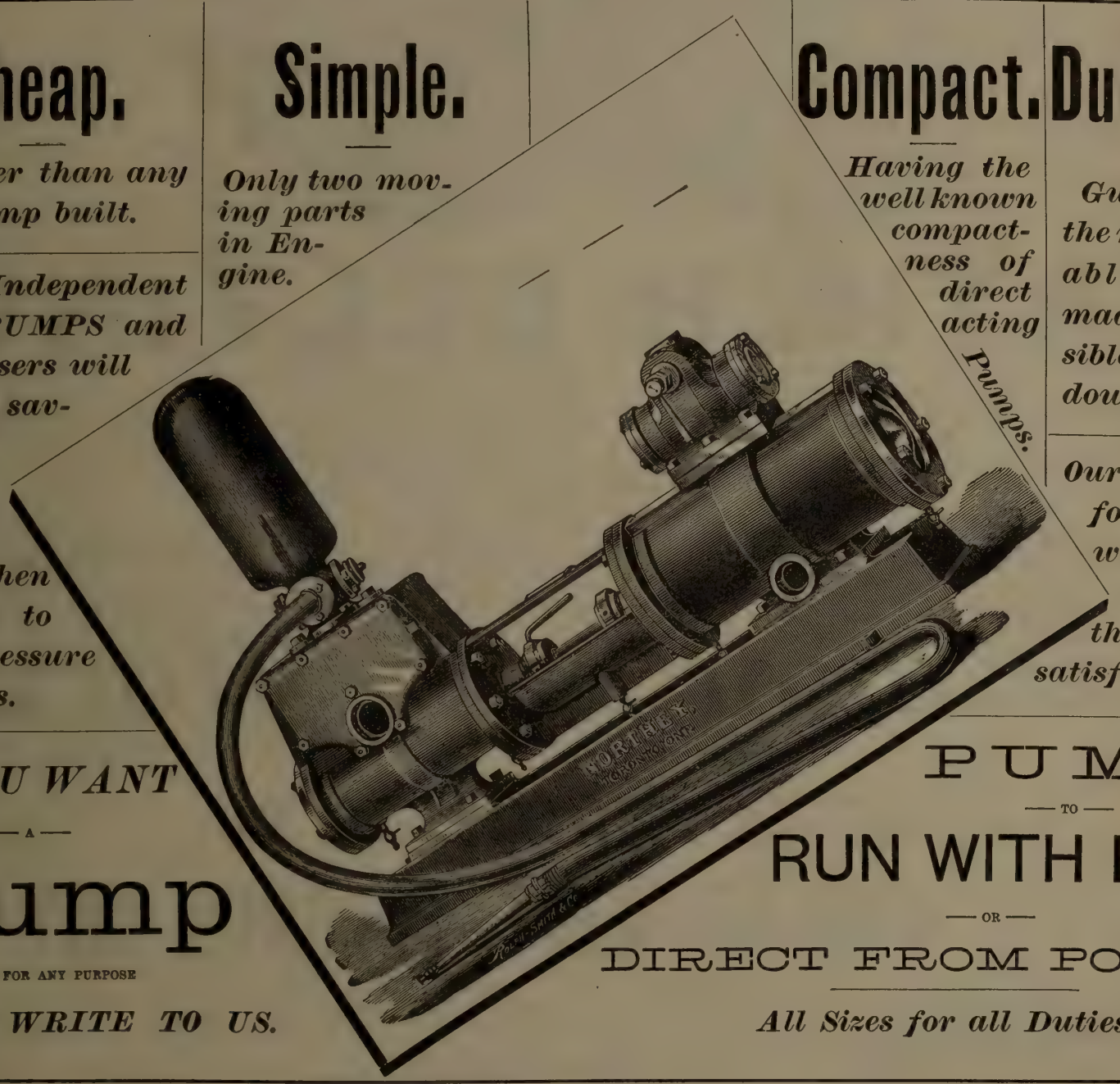


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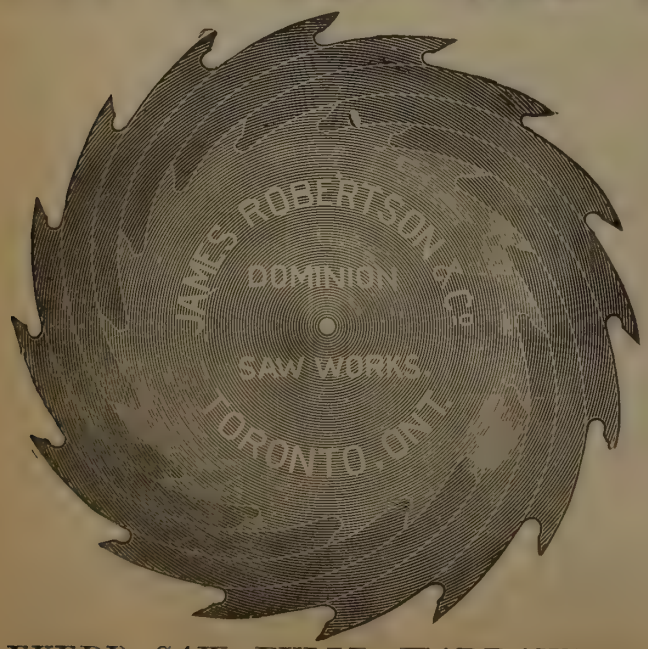


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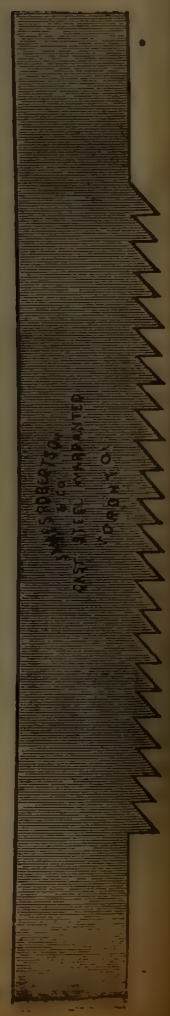

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# THE CANADA LUMBERMAN

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PUBLISHED SEMI-MONTHLY.

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VOL. 5. PETERBOROUGH, ONT., OCTOBER 15, 1885. NO. 20.


### HACKMATACK KNEES.

Among the board piles and heaps of shingles which line Bangor's wharves at intervals are noticed another product of the forest which, a - thoug used for many purposes and shipped far and wide, are little known about. I mean knees, which come from the roots of the hack matack and spruce tree, generally from the former. The handling of knees has been carried on in Maine, for many years, and although the trade has declined considerably late, several firms are yet engaged in it. Tne knee trade is not what it once was, for the reasont hat shipbuilding has declined, while iron knees have to a considerable extent taken the place of wooden. A wooden vessel requires a great many knees, large and small, every deck beam being fitted with six—three at each end—and when shipbuilding in Maine is good, so is the knee trade. A good part of the knees sold now go into the construction of large warehouses in the big cities, floating bath or boat houses, barges, etc.

Knees are gotten out at all seasons of the year. Sometimes a man can make four or five dollars a day and at other times but smal wages. It all depends upon whether he strikes a locality where suitable trees are grouped together, or a section where they are few and scattered. He selects the biggest root for the knee and then bores into the tree trunk a little way from the ground to find whether it be decayed or sound. The knee is cut out in a rough manner with an axe and shipped to the nearest buyer. Sometimes the tree trunk is taken out for timber, but it is oftener left where it falls. A gnarled and stunted tree is the best for knees, as may readily be inferred, and a loam suboil with clay bottom is the kind of land where such trees grow, the hard clay turning the roots aside and thus forming the desired angle. The knees, as its name indicates, is formed of two parts at right angles with each other. The lodger is known as the stock and the shorter as the root. The knees are of various sizes, designated by numbers from four to ten, inclusive. The dimensions range from four feet length of stock and two feet root for a No. 4 knee, to five feet six inches stock and four feet root for a No.10 The thickness varies, according to these dimensions, from four inches to ten, after the rough knees have been run through a Daniel's planer. The prices paid by dealers to the cutters are as follows: No. 4, 20 cts. each, No. 5, 50 cts. each; No. 6, 65, cts each; No. 7 $1.25: No. 8, $2.25; No. 9, $3.25 No. 10 $4 25.

The greater part of the knees that come to Bangor are cut in Piscataquis county, which abounds in hackmatack. Regarding the present timber growth of Piscataquis I heard a good yarn the other day. It seems that away back in the dim and legendary good old times that we hear so much about, there was in Maine a land agent named McIntire, who must have come of the famous "bold McIntyres," for he was a man who used his authority for all it was worth, and in this particular instance for more. In his time there were certain denizens of Nicatou, now Medway, who were accustomed to helping themselves liberally to the timber about Quakish Lake, which is on the West Branch of Penobscot above Grand Falls. This timber then belonged to the State, as it stood on land that had not yet been conveyed to any purchaser, and McIntire resolved to put a stop to the Nicatou people's enterprising operations. There was a great growth of meadow hay in this section, on which the tresspassers depended for the sustenance of their cattle, and the land agent, preceiving this, ordered some of his henchmen to set fire to the dry grass. They did, and quite a conflagration started. In fact McIntire builded better than he knew, for instead of simply burning up the hay the fire attacked the fine old pines and hardwood trees and swept across the country nearly to Moosehead Lake, destroying millions upon millions of the best timber Maine ever saw. But the fire was not all loss, for from its ashes, over the stumps of the old pines, has sprung up since a growth of sapling pine, white birch and poplar—three trees which are the source of much of the manufacturing life and c mmercial prosperty of Piscataquis and Penobscot. The famous spool-wood district, with its factories, is included in this rejuvenated forest section, and from there are obtained second-growth pine logs from which so many millions of box-boards are sawn, and the poplar, of which so much has been used for paper pulp. The spool stock has been sent from Bangor to points as far di tant as Paisley, Scotland; the pulp-wood to Providence and Maryland, and the box-board all over the New England and Middle States, while thousands of sacks of finished spools are s nt to Connecticut and elsewhere.—*J. D. in Maine Industrial Journal.*

### LEAKAGE AT TUBE ENDS.

Leakege at tube ends is one of the most frequent and annoying defects to which the ordinary horizontal and upright tubular boilers are subject, and while it is not necessarily on its first appearance dangerous, it indicates that something is wrong either in construction or management of the boiler, and it should be attended to at once. for if neglected the result ing corrosion of the head and tube ends will speedily induce a dangerous condition Many explosions of upright tubular boilers have resulted solely from this cause. Faults of construction may consist of insufficient rolling, or too severe rolling or expanding of the tubes, by which the ends may be split or cracked, so that it is impossible to keep them tight. The second defect is, perhaps, more frequent than the first. The feed-pipe is also very frequently wrongly located in the head close to the tubes, and when it is, and cold feed-water is used, the tubes in the immediate vicinity are almost sure to show a chronic leak. A heavy coating of scale on the heads between the tubes is sure to set them leaking severely, as the water is thus kept away from the head and tube ends, and they become overheated. In this case the only thing that will do any permanent good is to remove the cause, that is, the scale, when generally, if the defect has not existed for too long a time, the tubrs may be rolled and made tight again. But a comparatively short time of severe leakage in this case is pretty sure to so severely corrode the ends that new tubes are required. This collection of scale is also a fruitful source of burning and cracking of the back tube sheet. The front end of the boiler is not so much subject to this action, as the heat to which it is subject is not so intense. The removal of a heavy coating of incrustation from between the tubes of a boiler is sometimes a matter of some difficulty unless due intelligence is used. With "staggered" tubes, very bad water, and where the boiler is worked hard, the case is much complicated, and the almost sole reliance is a judicious use of solvents, coupled with proper cleaning, as often as the boiler can be spared for the purpose. With properly arranged tubes much help can be obtained by the use of proper chisels and scraping tools. Still no rule of procedure can be given that will apply to all cases. A thorough examination of each case is always necessary to determine the best method of procedure, and it is always easier to keep a boiler clean than it is to clean it after it is badly foeld.—*The Locomotive.*

### KEEP A RECORD.

Some weeks since we called upon an engineer friend who was thoroughly wrapped up in his machine. In the course of the conversation he produced a book in which he had for months kept a record of the coal consumed each day, and the horse power developed by his engine as shown by indicator cards taken in the fore and afternoon. These cards, being filed, served as a record of the condition of the engine in those respects which are apparent from the card. This was kept for a long time without his employer's knowledge, half in fear that some objection would be raised, but was at length produced to settle one of the innumerable little points, which only such a record can definitely settle, and met with so hearty an approval that the engineer was supplied with a record book, purposely ruled and lettered, and a planimeter for the more convenient and accurate working up the cards.

All engineers who are handling powers of any ex ent should inaugurate a system of this kind Keep a record not only of your coal and power, but of changes which are made and their effect upon your fuel consumption and the working of your engine. It will not only enable you to review your experience and retain valuable information, but suggestions will frequently arise from it which will be invaluable. It begets a habit of thought, and furnishes the material for deductions which will make you a success in your business, and gives you a means of proving what you have done and can do, which no amount of assertion on your part or recommendation by others can equal.—*Journal of Commerce.*

### SAWDUST PAPER.

A Vermont newspaper has recently appeared which is entirely printed on paper made from sawdust, the product of Mr. Pond's roller pulp machine, by which sawdust, shavings, chips and pieces of wood can be made with great rapidity into a pulp of clear, fine fibre. This machine will also manipulate the stocks of cotton, sugarcane, wild hemp, etc., at the rate of from 2 tons of dry pulp per diem. The resulting pulp is far superior to any other form of wood pulp, because the fibre is preserved intact and the cellulose is left with it, giving it great strength, softness, and pliability. The tensile strength per square inch of newspaper, which contains from 50 per to 75 per cent of ground wood pulp, is from 8 lb, to 12 16., and stands a test of 17 lb. to the square inch, showing that it is much stronger than paper made from one third rags. As all kinds of paper can be made from this pulp without the addition of rags, cotton, or jute, it can be manufactured at a reduction of from 30 to 50 per cent. or the present cost. The unbleached pulp is also useful for wrapping-paper, and is equal in color and strength to the best Manilla. The woods most adapted to the process are the soft woods, such as spruce, fir, pine, poplar and hemlock, the latter making the strongest fibre being equal to jute in strength. Besides the manufacture of paper, the pulp can be utilized for woodware, such as pails, barrels, and mouldings —*Journal of Progress.*

A DESPATCH from Pichanock on Oct 5th says:—Lumbering is going to be very brisk in this neighborhood this season. For the last three or four years nothing has been done on the Gilmour limits, aad this year several jobbers have received contracts from Mr. Gilmour at very fair prices, and a number of them have already entered on the fulfilment of their contracts Men and provisions are arriving daily, and there is every prospect of things being pretty lively here this winter. Mr. Gilmour's Pickanock farm has been re-opened, as have also the offices and stores. The Gilmours themselves will also carry on operations on a fairly large scale. Prices average to jobbers from 80 cents to 90 cents per standard.


Subscribe for the CANADA LUMBERMAN.

## PRACTICAL HINTS TO HARDWOOD MANUFACTURERS.

The demand for oak throughout New England is small, as compared with the demand for other hardwoods, and to consumers have such queer ideas in regard to the wood that the trade is not altogethor satisfactory. The shipbuilders whose yards are located along the coast, probably use as much as any one industry. Carriage makers use quite an amount, and the railroad companies buy more or less for bridge purposes, and in addition to these there is at certain seasons of the year a limited demand for white oak plank for export.

White oak is the only species that find any sale in New England, and the prejudice is so strong against red oak that few consumers will attempt to use it at any price. The supply is obtained partly from northern Vermont and Canada, partly from Ohio and Indiana, while considerable is consigned east by the mill men of West Virginia and Kentucky. The carriage and bridge builders obtain much of their supply from Canada. The shipbuilders send to Ohio for their long sticks, and to the Virginias and Canada for certain smaller sizes. For house finishing purposes the trade is largely supplied by the mills of Ohio and Indiana. The export trade calls for plank from two to four inches thick, and generally all 16 feet long; the quality must be almost perfect, and a check or crack in the ends will condemn a piece immediately. The oak of West Virginia is well adapted to meet the demands of the foreign trade, but there appears to be very few mill men who understand how to manufacture good quality oak, hence the unsatisfactory comments on the southern oak are largely due to the ignorance of the mill men. It is the nature of oak to crack in drying, not only in the ends but on on the face, and it should be the study of the sharp sighted mill man to reduce that feature to a minimum. First of all paint the ends of the logs, and when the lumber is sawed and ready to pile, place the sticks close together and directly over each other, and above all things thoroughly protect the lumber from the snow and rain. Heavy dews and occasional rainfalls, followed by the rays of a burning sun, will spoil the best of oak in a very short time; it therefore pays to put a substantial covering over each pile, at the same time allowing the air to pass around and through the piles continually. Several attempts have been made to introduce Virginia oak into the New England territory for bridge and railroad purposes, but all such efforts have proved unsuccessful and unprofitable, almost wholly on account of the inferiority of the manufacture. Splits, cracks and heart shakes have condemned its use.

The rules of inspection on oak in the Boston market are as follows:—

Oak shall be inspected as No. 1, No. 2, and culls.

No. 1.—Shall be 7 inches and up wide, and free of all defects.

No. 2.—Shall be 6 inches and up wide, and may have a few small sound knots, but two-thirds of the entire piece, as a whole, must be suitable for first-class work without waste.

Culls—shall include all lumber not up to the standard of the above grades.

Oak is inspected for cracks and splits, and such defects will lower the grade.

Standard lengths are 12, 14 and 16 feet.

Standard thicknesses are 1, 1¼, 1½, 2, 2½, 3 and 4 inches.

The standard inspection is 75 per cent. firsts, the balance good seconds.

For the last two years quarter-sawed white oak has gradually been growing in favor, and the present demand is largely in excess of any previous demand for years. The thickness most used is inch, and it is worked into flooring and general house finish. The furniture manufacturers are using quite an amount for dining tables and sideboards, and the manufacturers of desks and chamber sets use limited amounts The beauty and value of quarter-sawed oak is in the figure, and it takes more than an ordinary sawyer to cut the saw to good advantage. Only the largest and best logs should ever be quartered, as a most desirable feature in such stock is to secure clearness and width. The eastern market will take quartered oak, five inches and up wide, but the buyers also place the value on a car load by the amount of lumber that is over 12 inches in width.

The best length to cut quartered oak is 14 feet, olthough there is a demand for more or less 16 feet, and for such a good price is easily obtained. The demand for thick quartered oak is limited, and the price is usually from $3 to $4 a thousand more than for boards.

Quartered oak should always be square edged, and piled in such a manner as to dry out perfectly straight. An eighth of an inch should always be allowed in the sawing, so that that the boards will dry out full thickness. It is always better in shipping oak from the South to send it by all rail, as the saving in freight by rail and water is not sufficient to offset the damage in handling, and the unsatisfactory dock accommodations in Boston. Cull oak and three-quarter inch stock, used in the south for tobacco boxes, are not used in the east, and have no market value.—*Northwestern Lumberman.*

## FACTS OF INTEREST.

At the fourth annual meeting of the American Forestry Congress President Higley responded and drew attention to the importance the movement for the restoration of the forests as touching agricultural, climatic, and commercial interests. The various causes, and bringing about the waste of forest trees was referred to, and statistics presented in detail showing the rapid and wide-spread destruction of the country's forests. The speaker claimed that the climate and the culture of the soil would be greatly improved and the water supply would be made more abundant by the conservation of trees.

The Rev. N. H. Eggleston, Chief of the Forestry Division of the Department of Agriculture, Washington, read a paper giving some facts and figures in regard to the forests of the country and their consumption. In the course of his remarks the speaker said that the recent census shows that the whole area of land surface, Alaska being out of consideration, is 1,856,070,400 acres; total forest area, 440,990,000 acres; total farm area, 295,650,000 acres. Of unimproved and waste lands, including "old field," there are 1,115,430,400 acres. There are 150,000 miles of railway, including side tracks. It has required 396,000,000 ties for their construction. Supposing that the ties require to be renewed once in six years and that 10,000 miles of new road are built annually, if 25 years be allowed as the time necessary for trees to attain a size suitable for making ties, then it would require 15,000,000 acres of standing timber to supply the annual demand for ties, or an area almost exactly equal to that of Vermont, New Hampshire, Connecticut, and Rhode Island combined. But with the increase of railroads it is to be considered that the annual demand for ties is all the while increasing. The census reports the consumption of 145,778,713 cords of wood and 74,000,000 bushels of charcoal for fuel in dwellings, stores, factories, steamboats and locomotives. This, in a single year, would clear the forests from an area of 30,000,000 acres, about equal to that of New York and North Carolina. The census also reports that in 1880 forest fires consumed the trees on 20,274,089 acres, and there is no reason to believe that a less area will burned over this year than in 1880. The census gives the amount of lumber cut in 1880 at 18,000,000,000 feet. Last year the cut had increased to 28,000,000,000 feet, which would lay bare an area of 5,600,000 acres, equal very nearly to that of New Hampshire. Altogether, it appears that the forests of the country are subject to an annual drain of 50,750,089 acres, which would clear a wooded surface equal in extent to the area of all the New England States, together with New Jersey and Maryland. It may well be inquired how long the forests can endure this drain, how long the country can bear this rapid destruction of its most important material element of its prosperity.

**A Lovely Complexion.**

"What a lovely complexion," we often hear people say. "I wonder what she does for it?" In every case the purity and real loveliness of the complexion depends on the blood. Those who have sallow, blotchy faces, may made their skin smooth and healthy by taking enough of Dr. Pierce's "Golden Medical Discovery" to drive out the humors lurking in the system.

## TIMBER AND DEALS FROM ST. JOHN

One-sixth is not a serious falling off in shipment from St John of deals thus far in 1885 as compared with 1884. The total shipment from that city to Europe during nine months of the present year, has been 126,503,963 superficial feet, carried by 181 vessels of 144,803 tons, as compared with 150,043,734 feet, 202 vessels, 169,931 tons in a like period of 1884. A notable point of contrast is a smaller number of steam craft which have this year carried deals; there were 50 steamships of 65,768 tons in this trade last year, while this year there are only 23 of 32,451 tons. The shippers were, in the main the same as the former year, Alexander Gibson leading, with 65,000,000 feet, then W. M. Mackay with 19,000,000, R. A. & S. Stewart with 18,000,000, Guy, Bevan & Co. with 11,000,000, followed by Geo McKean, Sam Schofield and Knight and Co. The shipments to principal ports in the two years as under:—

| | | 1885. | 1884. |
|---|---|---|---|
| *Port.* | *Vessels.* | *Sup. ft. deals.* | *Ft Deals.* |
| Liverpool | 52 | 47,951 383 | 70,519,839 |
| Bristol Channel | 33 | 24,923,843 | 22,846 324 |
| Barrow | 7 | 9,220,510 | 11,929,629 |
| Queenstown | 9 | 5,828,401 | 4,150,341 |
| Belfast | 6 | 4,694,123 | 3,670,202 |
| Dublin | 6 | 4,102,213 | 2,958,156 |
| London | 4 | 2,776,599 | |
| Crookhaven | 7 | 2,651,042 | 1,261,188 |
| Cork | 8 | 2,393,709 | 2,044,235 |
| Londonderry | 4 | 2,272,526 | 2,466,017 |
| Fleetwood | 3 | 2,072,842 | 4,231,379 |
| Glasgow | 4 | 1,671,029 | 1,167,175 |
| Dundalk | 4 | 1,654,666 | 1,916,015 |
| Limerick | 3 | 1,618,230 | 3,758,863 |
| Mersey Channel | 2 | 1,395,467 | |
| Waterford | 2 | 1 197,785 | 1,107,795 |
| Continent | 2 | 1,347,955 | 2,347,607 |

Though none were despatched to Africa, as last year some went to Rotterdam. Cargoes went to two or three smaller Scottish ports, as Ayr and Irvine; the bulk of the remainder to Irish minor ports.

There is not much difference in the shipments of timber from St. John this year from those of last year. The total quantity of birch timber exported this year, says the St. John *Globe*, wa 12,231½ tons. Of this total 10,487 tons went to Liverpool, 800 tons to Carnarvon, 370 tons to Glasgow, 503 tons to Queenstown, 7 tons to Hare Island, and 4½ tons to Wexford. In the like period of last year, the shipments of birch were 11,555 tons, Liverpool receiving 5,521 tons, London 2,432 tons, Bristol Channel 752 tons, Carnarvon 1,054 tons, Conway 315 tons, Glasgow 847 tons, Queenstown 404 tons, and the remainder going in small lots to three or four ports. The pine timber shipped this year amounted to 2,973 tons, 2,315 tons being sent to Liverpool and the balance to Fleetwood. Last year the total shipments of pine amounted to 3,676 tons, Liverpool receiving 2,865 tons, Fleetwood 626 tons, and the remainder going to several ports in small lots.

## A NEW KINK IN SAWS.

There has always been some things in the behaviour of band saws when in motion that have never been satisfactorily explained. After the saw has been carefully hammered and put in apparently perfect shape, when no straight-edge can detect any irregularities in the surface, and when it seems to be all that it is possible for a band saw to be, there have still been imperfections in its running which have been explained in a vague and emperical manner by referring them to imperfections in the wheels, or to weakness in some part of the machine.

There has, however, a discovery recently been made in Chicago which solves one of the problems in connection with the use of the large-sized band saws, and which has attracted great attention on the part of some of the principal saw manufacturers, who admit that it has taught them a new wrinkle in the fitting of saws for actual duty.

To Mr. Edwin Benjamin must be given the honor of this discovery, though he disclaims any particular credit for it, saying that it is only what any sensible man might by a little consideration have known to have been the case, and the only wonder is that it was not thought of before, and long ago.

Mr. Benjamin has been engaged for six months past in building a band saw mill on his own designs and when the saw was first stretched on the and the power was applied, he was naturally very critical of its workings. The saw seemed to be in perfect order as far as the plate was concerned. The wheels were in perfect balance, and the whole machine was of unusually solid construction. Yet, when he put his hand against the guide blocks just above where the log would be run through, he felt a distinct and disagreeable vibration. He was at a loss how to account for it. If the saw had been cutting he would not have been surprised. It occurred to him that perhaps the saw might not be perfect after all. He found that the saw felt as rough as a rasp; hitting a confused succession of irregular blows. This convinced him that after all the pains taken in hammering the saw, it was not flat, so he stopped the mill and examined the saw.

Straight-edges showed irregularities in the plate. It was full of "open" spots, causing hollows on one side and "bumps" on the other. An experienced hammerer was sent for—Mr. Sampson, foreman of the Disston repair shops in this city—who fitted up an anvil which could be applied to the side of the saw, which was then carefully hammered as it stood stretched on the wheels. The result was that the saw, when again put in mortion, ran with perfect evenness.

The point of all this is simply that putting a saw under its working strain brings out latent defects which could not be discovered before. Saws are ordinarily hammered when lying flat on a saw table and anvil. But that very hammering, while it corrects observable irregularities, weakens the saw by making it thinner in spots or changing the texture of steel, so that when put under working strain these weakened spots stretch out and show in the shape of concave or convex places. It is evident that where such a spot occurs the strength of the saw is lessened by just the proportion that the diameter of such a lump bears to the whole width of the saw, and thus the saw is rendered liable to give away. Moreover, such irregularities must cause the saw to do rough work and render it liable to heat.

The importance of this discovery is testified to by such saw manufacturing concerns as Henry Disston & Sons, of Philadelphia; Branch, Crookes & Co., of St Louis and E. C. Atkins & Co., of Indianapolis, each of whom sent representatives to investigate the matter. One of the firm of Branch, Crookes & Co., said that it put an entirely new phase on the matter, and he telegraphed his firm to make no more guarantees on band saws sold, until they had facilities for finishing them under working strain. Mr. E. C. Atkins, of Indianapolis, came to Chicago with no other object than to see Mr. Benjamin in regard to the matter. In a call at the *Lumberman* office he said that the discovery put a new responsibility on saw makers, who would heve to revise their methods of finishing and hammering.

Not only are band saws altered by being put under working strain, but any saw that is worked under strain can be improved in the future. It is pretty certain that much of the trouble with both gang and circular saws has been caused by defects developed only under working strain; though in the case of the latter it probably cannot be remedied, as that strain is produced only when the saw is revolving, when no work can be done on it.

Though Mr. Benjamin's discovery can yield him no profit, he takes justifiable pride in it as one which will prove of vast benefit to the lumber manufacturing industry, and make possible another step forward in the progress of the band saw as a practical tool in the saw mill. —*Northwestern Lumberman.*

**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and boweis, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. **Price 25 cents a bottle.**

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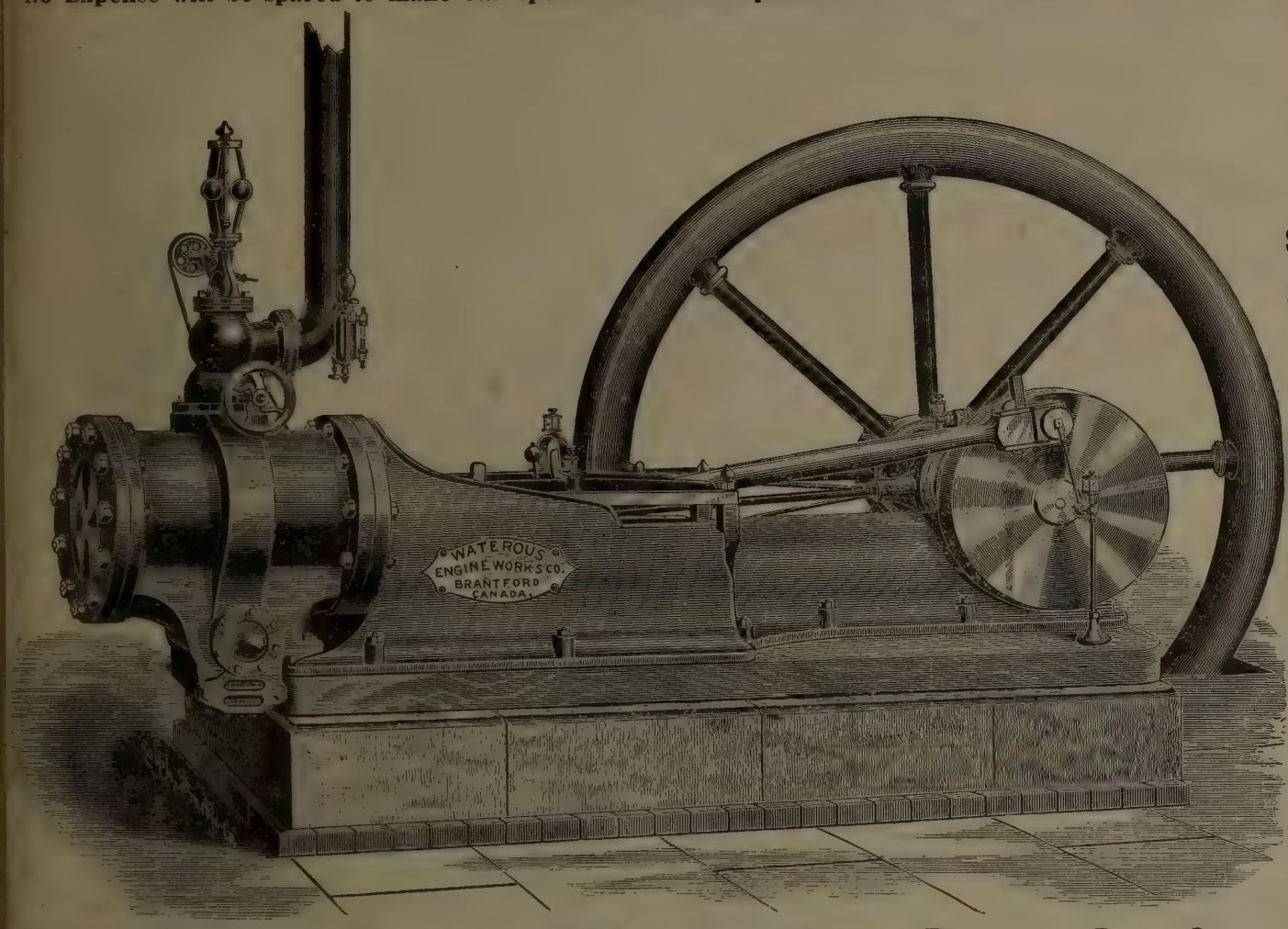


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### CHASED BY CYCLONE.

Within a few rods of the opening of the gulch I heard a roar as of oncoming wind. Nan cried out again to her horse, the animal lurched forward yet faster, and in a moment we were all entering the ravine. It was extremely uneven ground, and covered by broken, sharp stones. My sister and I were watching Nan; she slipped off the saddle and hurriedly motioned to us to do the same. The instant we were dismounted, the horses scrambled rapidly forward further into the gulch, and we did the same, Nan now in the rear, and trying to drive us along. That night I found my shoes cut, and a gash in my foot, but I did not feel the wound when I received it. While we were thus hurrying to get to the deepest shelter of the gully, the roar above us was awful, and was increasing ever moment. It reverberated strangely through the ravine. We could not have heard a word had we spoken. We all stopped simultaneously and looked at each other. There were two very white faces that I saw, with strained, frightened eyes. Nan made a movement with her head that we were not to go on, and we crouched down against the rocky sides of the earth. The next instant Emma leaned heavily upon me and silently pointed upwards towards the chasm's opening, where we had entered. The black cloud was just going past our point of vision, it had dilated to twice its former size, but still retained its cylinder shape. If it could be possible, it was more dense than ever, and boiling in its blackness. Balls of fire sped back and forth in the air, or my sight was under a hallucination to that effect. All the phenomena seemed to have their centre in that cone o black cloud. The strangest, the most awful thing of all that fearful experience was what I saw now. Behind that black cloud, whether following it or driving it, I know not, came a all cloud of dense, most dazzling white—a pillar of glory, growing every instant more like a pillar of fire, and soon appearing to control the inky shape. The raving noise was now at its height. In a moment the two mysterious shapes had passed from our contracted line of vision, they marched on, destroying as they went. The crash of timber along a stream not far off, the cannonading of the thunder, which had now opened its forces, and above all the overwheleming roar of the wind, made us shrink and cower closer together. A fierce blast caused us to throw ourselves flat on the stony ground, grasping at each others hands. So ignorant was I that I believed at that time that we were in the full power of the tornado instead of being comparatively sheltered by the walls of the gulch. Afterwards I know that we could hardly have saved our lives had we been not able to reach this ravine. Once I felt a touch on my head, from which my hat had long since gone. I found that it was one of the horses. They had all come back from their first run up the gulch to be near us; the three stood huddled close by, when we had a chance to look.—*New York Post.*

### ARCTIC EXPLORATIONS.

ANNAPOLIS, Ind., Oct. 10. — The United States Naval Institute, composed of officers of the Navy, discussed at the Naval Academy last night Lieut. Danenhower's paper on North Polar Researches, in which he takes the ground that there is no continent yet undiscovered in the North Polar Basin, and the only lands yet unknown are some small Islands and groups of islands, and the scientific knowledge yet to be obtained is not worth the loss of life and treasure that will be required for future expeditions. Chief Engineer Geo. W. Melville writes that he agrees that the work of the explorers of the past has been well done, but he does not concur with Lieut. Danenhower, either in his selection of route toward the pole or his statement that because of the hardships endured or the loss of life and treasure, the researches should be abandoned. He urges that Franz Josef Land has the two essential features recommending it as a base for an advance toward the pole. Lieut. Greely writes that he has no inclination to deny the merits of the essay, but the tendencies seem particularly unfortunate, and he regrets that it emanated from and officer of the service. Prof. H. Rind, of Norway, supports Lieut. Danenhower in his theory of islands and groups of islands in the polar basin, and believes that further Artic research is not worth its cost.

### Lumber Sales at Quebec.

QUEBEC, Oct. 9.—Two of Messrs. McLaughlin's rafts of choice Petewawa wood have been sold. The price is supposed to be 30 cents with a railroad raft of 53 feet average and 60 inch girth at 20 cents. Mr. Muir's oak, consisting of about 30,000 feet, has been placed at 40 cents. Mr. Lesueur has disposed of about 100,000 feet of oak at 48 cents for delivery this Fall and 49 next Spring.

THE Women's Medical College at Kingston was formally opened on Monday afternoon.

### THE HARVEST IN THE STATES.

WASHINTON, Oct. 10.—The crop report of the department of agriculture states that the average condition of cotton has fallen from 87 Sept. 1 to 78. The corn crop has met with very little injury from frost and will yield slightly above the average. Present indications point to yield of 26½ bushels per acre thorough the country. The returns from wheat are on a basis of the yield per acre for the area harvested. The average is about 10½ bushels. It is only 9 bushels on the area sown which was nearly forty millions. The average yield of oats will be nearly 28 bushels per acre, insuring a crop in excess of six hundred million bushels. The rye average is 10 decimal 4 bushels, nearly 2 bushels short of the yield of 1884. The average yield of barley will be about 22 bushels per acre The condition of potatoes has seriously declined on account of the prevalence of rot in New York, Michigan and elsewhere. The decline from September 1st was 11 points.


### Blowng up Hell Gate.

has been a laborious and costly work, but the justifies the effort. Obstructions in any important channel means disaster. Obstructions in the organs of the human body bring inevitable disease. They must be cleared away, or physical wreck will follow. Keep the liver in order and the pure blood courses through the body, conveying health, strength and life: let it become disordered and the channels are clogged with impurities, which result in disease and death. No other medicine equals Dr. Pierce's "Golden Medical Discovery" for actingupon the the liver and purifying the blood.

We guarantee the speedy, painless and permanent cure, without knife, caustic or salve, of the largest piles tumors. Pamphlet and references sent for two letter stamps. World's Dispensary Medical Association, 663 Main Street Buffalo, N. Y.

## REDWOOD IN CHICAGO.

A California correspondent writes the *Lumberman* asking in regard to the status of California redwood in this market. He says, "can you inform me whether there is any particular prejudice among the dealers and carpenters against the wood, or whether the light demand is the result of high prices and limited supply? So far as we know on this coast the latter is the cause." This opinion is the correct one. What prejudice there may have been in the past seems to have about passed away, and now consumers are perfectly ready to use it for any purpose for which it is adapted, provided it can be obtained, and the price is not too high.

The wood has had to contend against the difficulty of a small and uncertain supply. Various firms have tried to handle it here; but, as they were not willing to invest the necessary amount to carry a full stock here, and depended on shipments from California, as they received orders, in which shipments they were often disappointed from lack of dry stock in the hands of their coast connections, the business has languished. We may be doing an unintentional injustice to some Chicago dealers; but, as far as we know, there is at present but one firm in the city that has such arrangements on the coast that it can guarantee shipments, and even this firm does not carry any stock worth speaking of here. Its method of carrying on the business does well enough in the case of large contracts when there is time for the lumber to come from California, but it does not do for the smaller trade which wants material for immediate use. The result of the present condition of the trade here is that redwood hardly figures as a factor in the lumber trade of this city, and can not come into general use among the carpenters and other small consumers.

Our correspondent also enquires as to whether the wood cannot come into competition with white pine for some uses. It is hard to tell what it might do if the price was 25 per cent. lower than it is, but at present it is no more a competitor of white pine than is black walnut. It is merely thought of as a special finishing wood. Some architects make use of the lumber; and a good many dimension shingles, both plain and fancy butts, are used for roofs and in place of siding on suburbau cottages; but neither have any acknowledged standing. What is needed to introduce the wood is a supply in yard in this city sufficient for any current demand. A stock of 1,000,000 feet of lumber and plank with a few millions of shingles, the whole well assorted and held at as low prices as possible, would probably encourage a large consumptive demand.

That the necessity of such a method is understood on the Pacific coast is shown by our correspondent, who says:—

"There has lately been inaugurated a movement which, if carried to completion, will place an abundant supply at your door. Believing that arrangements should be made to control an abundant supply, that the same should be thoroughly seasoned to reduce the freight as much as possible, and that the lumber should pass through as few hands as possible, it is proposed to form a company, the stockholders to be only redwood lumber manufacturers. It is expected that the company will have to carry a stock of from 10,000,000 to 15,000,000 feet of our best and most valuable clear lumber, which will involve a capital of from $250,000 $500,000. There has, as yet, been found no artificial dryer that will season redwood and turn it out in as good condition as when seasoned in the open air. Hence, should the company start in now, it would be four or six months before it would be ready to ship any lumber. We anticipate that such a company as this, which looks for a manufacturer's profit only, will be able to place our clear redwood in your market at about the price that clear pine is selling for there, and should your consumers give it a fair trial, we are confident they will find it equal to your best clear pine in all respects, and for many purposes, especially where its lasting qualities are tested, far superior."

Such a scheme, if carried out, should put a large stock of redwood in this market in time for next spring and summer's building. And we believe that all that is necessary to make it a success is to thoroughly advertise, not the merits of redwood, but the fact that an ample supply is at hand for all which it.

Our correspondent also asks whether such an introduction of redwood would be kindly received by our dealers. It is difficult to see why there should be any antagonism to it. Redwood could only come in competition with white pine uppers, and they are firm in price and growing in value year by year. A few millions of redwood will be but a drop in the bucket of the lumber trade of Chicago, and could hardly influence the market in any way. —*Northwestern Lumberman.*

## THE WOODEN AGE.

This has been properly called the iron age, the age of steel, and the metal age generally, but from figures that go to show the enormous consumption of manufactured lumber, and the inevitable future impoverishment of the supply sources, the age may be more fitly termed the age of wood. Metal manufacturers, says the *Building Woods Journal*, there will always be as long as there is human strength to wrest the ore from the bowels of the earth, but it is a fact, made evident from careful computation, that each successive year so diminishes the extent of forests in this country and Canada that the time must come when the scarcity of timber, particularly pine, will so increase its market that it will be stricken from the list of economical building materials. This period may be farther in the future than has been predicted, but it is safe to say that in the next century a gradual revolution in building will be commenced by the enforced use of metals where wood has been used in construction. At the recent convention of American engineers, a paper was read containing very carefully compiled statistics, proving the necessity of more economy being used in the manufacture and use of lumber products. The author concluded that the supply of white pine in the United States, and probably in Canada, at the present rate of consumption, was almost certain to be exhausted by the end of the present century Of yellow pine, spruce and hemlock, the forests of the South would yield a supply of 150 years, at the present rate of consumption. East of the Mississippi there is probably twenty-five years' supply of hard wood. The supply of walnut and ash is being rapidly exhausted. It may be that these theoretical limits may be greatly extended in reality, as the country is large and the possibilities of the growth of new timber very great, if immigration to this country and natural increase in population do not make such demand upon the forest territory that the next generation of timber will be insignificant in amount and value.

When the lumber supply is at an end so far as concerns building operations, entirely new features of architecture will be developed. Building will be erected that will atand as long as brick, stone and metal will endure, and the comparative cost being greater, a higher order of architectural talent will be encouraged to suit the universal demand for permanence and beauty. Then will truly begin the age of metal and architectural perfection.

## THE DULUTH TRADE.

There is a startling change taken place in the direction of Duluth's lumber trade. The manufacturers' of that district have hitherto looked westward for their distributing field. They have mainly depended on the Northern Pacific railroad as an outlet, and, within two years past tried to squeeze a little of their surplus into Kansas and Nebraska. For a few years they had a bonanza in the Northern Pacific trade, which took everything which could be run out of a saw mill, without question as to qualit or grade. But a change came upon the Duluth business after the boom of 1880-82 subsided. Customers became more fastidious, competition sharper, and the full flush of Duluth prosperity was overclounded with gloom. Manufacturers in that district for the past two years, until recently, complained bitterly of the limited demand and meager profits. But this season the demand has improved. It has come from all parts of the compass—west, southwest, from Port Arthur, Chicago and the East. Now our correspondent from that point announces that the prospect is that hereafter a large proportion of the Duluth mill product will go to Buffalo and Tonawanda. The big coal barges from Buffalo offer to take lumber from Duluth to the lower end of Lake Erie at $2 a thousand, only 50 cents more than from Saginaw or Bay City. At this rate lumber can be profitably shipped from Duluth to eastern markets, and thus the surplus at that point can be disposed of. There is also an increase of shipment from Duluth to this city. This new direction of Duluth lumber shows, as the *Lumberman* has before intimated that the markets situated on the great lakes must absorb most of the lumber tributary to the lakes. Low lake freight rates determine the movements of lumber in the direction of the lake markets. It is also evident that the consumptive requirement east of Chicago is bound to be such as to constantly draw away and absorb the bulk of the lumber to be produced in the territory contiguous to the lakes.—*Northwestern Lumberman.*

## A SUCCESSFUL SAWYER.

1. Acquire sufficient knowledge of machinery to keep a mill in good repair.

2. See that both the machinery and saws are in good order.

3 It does not follow because one saw will work well that another will do the same on the same mandrel, or that even two saws will hang alike on the same mandrel: on the same principle that no two clocks can be made that tick alike, no two saws can be made that will run alike.

4. It is not well to file the teeth of circular saws from the same side of the saw. especially if each alternate tooth is bent for the set, but file one-half the teeth from each side of the saw, and of the teeth that are bent from you, so as to leave them on a slight bevel and the outer corner a little the longest.

5 Never file any saw to too sharp or acute angles under the teeth, but no circular lines, as all saws are liable to crack from sharp corners.

6. Keep your saw round, so that each tooth will do its proportional part of the work, or, if a reciprocating saw, keep the cutting points jointed on a straight line.

7. The teeth of all saws wear narrowest at the extreme points. consequently they must be kept spread so that they will be widest at the very points of the teeth, otherwise saws will not work successfully.

8. Teeth of all saws should be kept as near a uniform shape and distance apart as possible, in order to keep a circular saw in balance and in condition for use.—*Michigan Manufacturer.*

## CROSS-TIES.

According to the report made by F.B Hongh, of the Department of Agriculture, on the "Durability of Cross-Tie Timbers," the cross-ties needed for railroad construction are a heavy draft upon our forests. In France and England the country does not raise sufficient timber to furnish ties, and they have to be imported abroad; and in Mexico and South America, notwithstanding the great forests, many ties were similarly imported. In this country, on the other hand, we are exporting them; but the time will soon come when the demand will meet the supply. It requires 17,000,000 acres or 26,500 square miles of forests to furnish the present demand of the railroads, and at the rate of progress in building new lines 30,000 square miles of forests will have to be set aside for this purpose within a decade.

The principal timbers employed for railroad purposes are the following, given in the order of their use: Oak, pine, chesnut, hemlock, cedar, tamarack, cypress, elm, ash, cherry, black walnut, fir, butternut, coffeenut, mulberry and mesquite.

The oak lasts seven and a half years as a cross-tie, and costs 41 cents per tie. Red oak, however, lasts only five years and black oak four and a half. Southern pine is good for six and a half years, and costs 37 cents, white pine has the same durability, but costs less, 31 cents.

Cedar shows the greatest average durability of twelve years, with a cost of 34 cents, but it is to be soft to bear heavy freightage and is consequeutly not much used in railroad building.

California redwood is also very durable and lasts seven years, but this, it must be remembered, is in the dry climate of California, where all kinds of timber last well.

Cypress makes a good cross-tie, lasting nearly nine years where white and black ash rot in four years. Finally, all hewed woods are much more lasting than when sawed.

The present price paid for cross-ties in the United States—an average of 35 cents—is phenomenally low in comparison with other countries. and is due to the fact that so many of our railroads traverse well-wooded districts. It is inevitable that with the destruction of our forests their price will rise. and that our railroads of the future will find cross-ties among the most expensive articles of construction.

## HOW TO PREVENT FIRES.

The Boston *Globe* gives the following report of a debate at the Forestry Congress in which the Canadian delegates took part:—

Mr. William Little, of Montreal, who was endorsed very handsomely as a friend of the forests and a practical lumberman of Canada for many years, opened a discussion on the Rev. Mr. Egleston's paper. He claimed that in the condition in which lumbermen leave forests the woods are naturally made the prey of fire. He asserted that lumbermen were largely and principally responsible for the destruction of the forests.

Commissioner Coleman asked what should be done to prevent leaving forests mere masses of kindling wood and to guard against forest fires.

Mr. Little thought that one remedy was to take out and utilize the entire tree when it is cut down, somewhat after the custom in France, where every portion of a tree is recognized as valuable timber.

Judge Ladd, of New York, asked as to the practicability of requiring the burning up of branches and limbs and debris on forest-cleared land in winter, so that fire might not spread.

Mr. Little said the scheme would not be practicable. The true idea was to secure a recognition of the value of tops and branches of trees.

Mr. Merriam, of New York, explained the advanced methods of some of the Adirondack lumbermen, who see the value of protection to their property, and take every possible precaution against forest fires. It is from the carelessness of tourists that damage to the Adirondack woods has been chiefly due of late years. The residents are aroused to the importance of preserving our forests. Mr. Merriam regretted that Boston should not have shown more interest in the great cause.

Mr. Little spoke of the interest felt in American forestry by the Hon. Mr. Lynch, Commissioner of Crown Lands for the Province of Quebec, a gentleman who would gladly have attended the congress, but had been kept away by unavoidable circumstances.

## A VALUABLE TREE ATTACKED.

The hacmatac trees of the whole Province of New Brunswick presents a half-dead appearance on account of the ravages of a grub or worm of the caterpiller species. It attacks the largest trees by preference, destroying the fresh verdure of the upper portions first and leaving that of the lower branches comparatively uninjured. It spares the very young trees, those about eight feet in height and under being untouched The work of this pest was first discovered on the south side of the Miramichi in Blackville parish, but it has since been seen in different parts of New Brunswick, and Gloucester A contemporary referring to the ravages of the same worm, says:—"For some time past an insect, which has been mistaken by many for the army worm. has been destroying the hacmatac trees of the province. All along the St. John river and the New Brunswick railroad their ravages are discerdible" We understand the spruce trees have also been attacked by the same insect.—*Ex*

### THE WOOD GIANT.

From Alton Bay to Sandwich Dome,
From Mad to Saco river,
For patriarchs of the primal wood,
We sought with vain endeavor.

And then we said: "The giants old
Are lost beyond retrieval,
This pigmy growth the axe has spared
Is not the wood primeval.

"Look where we will, o'er vale and hill,
How idle are your searches,
For broad girthed maples, wide limbed oaks,
Centennial pines and birches!

"Their tortured limbs the axe and saw
Have changed to beams and trestles;
They rest in walls, they float on seas,
They rot in sunken vessels.

"This shorn and wasted mountain land
Of underbrush and boulder—
Who thinks to see its full-grown tree
Must live a century older."

At last to us a woodland path,
To open sunset leading,
Revealed the Anakin of pines,
Our wildest wish exceeding.

Alone, the level sun before,
Below, the lake's green islands,
Beyond, in misty distance dim,
The rugged Northern Highlands.

Dark Titan on his Sunset Hill,
Of time and change defiant!
How dwarfed the common woodland seemed,
Before the old time giant.

What marvel that in simpler days
Of the world's early childhood,
Men crowned with garlands, gift and praise
Some monarch of the wild wood.

That Tyrian maids with flower and song
Danced through the hill grove's spaces,
And hoary-bearded Druids found
In woods their holy places!

With somewhat of that Pagan awe
With Christian reverence blending,
We saw our pine tree's mighty arms
Above our heads extending.

We heard his needles' mystic rune,
Now rising and now dying,
Assert Dodona priestess heard
The oak leaves prophesying.

Was it the half-unconscious moan
Of one apart and mateless,
The weariness of unshared power,
The loneliness of greatness?

O dawns and sunsets, lend to him
Your beauty and your wonder,
Blythe sparrow, sing your summer song
His solemn shadow under.

Play lightly on his slender keys,
O wind of summer, waking
For hills like these, the sound of seas
On far-off beaches breaking!

And let the eagle and the crow
Rest on his still green branches,
When winds shake down his winter snow
In silver avalanches.

The brave are braver for their cheer,
The strongest need assurance,
The sigh of longing makes not less
The lesson of endurance.

—*John Greenleaf Whittier.*

### SOME CUROSITIES OF RAINFALL.

Here in Canada we have no particular extremes of wet and dry as in the tropical regions, and the same attention is not paid to the rain gauge as in such countries as dear old England, green Erin, or the west of Scotland, where it rains always except when it "snaws." The rain "falleth on the just and the unjust" alike, but if we are to judge by the very uneven distribution of "the gentle rain from Heaven" we should say there were some very just, and and some extremely unjust folk on the face of our globe. For instance: on the Guano islands, off the coast of South America, they do not know what rain is, while in some other favored regions they have a trifle of two or three feet of rainfall in as many hours. The rainfall of a country depends much on the prevailing wind, its permanence, temperature, and the elevation and character of the district over which it passes. High mountain ranges have a great deal to say to the matter, as they intercept a great deal, and in some particular cases, nearly all of the aqueous vapors with which the atmosphere becomes charged in its passage over the ocean, which of course is the chief source from which the great supply of moisture is derived. These mountains catch the rain clouds and cause the moisture to be deposited on the windward side, while the leeward receives little or none.

Intensely heated plains, by elevating the temperature of the winds passing over them, even though saturated with moisture on their arrival, greatly tend to prevent precipitation. Thus we see the deserts of Sahara, Egypt, Arabia, and immense tracts in Central Asia, nothing but arid wastes. The great Table Lands of Tibet and Mexico, parts of California, and what is known as the American desert, are all comparatively rainless districts. The greatest known rainfall occurs in some parts of India. On the western slopes of the Ghauts the average fall for a period of forty years was 275 inches. At Cherrrpoonjee, on the Garrow Mountains, the annual rainfall averages 550 inches, which is about the entire quantity that they get at Alexandria, in Egypt, in a century. Hooker, the naturalist, observed in some of the valleys of the Himalayas, a fall of 470 inches in seven months, and 30 inches on one occasion in four hours, which equalled the annual rainfall of France. At Khasia, in the month of August, 1841, we are told that 264 inches fell, 30 inches falling daily for five successive days! They must be preternaturally "just" in that part, if the rainfall be any criterion.

Latitude exercises a great effect on rainfall. Humboldt estimates the average fall at the equator at 96 inches; at lat. 19°, 80 inches; at 45°, 29 inches, and at 60°, 17 inches. The average for some parts of the United States are:—Brunswick, Me., 44.68 inches; Burlington, Vt., 34.15 inches; New York, 43.24 inches; San Francisco, 19.56 inches; San Diego, Cal., 9.16, and Fort Garland, Col., 6 11 inches.

The lowest monthly rainfall in England in 1884 was in August, 0.67 inches, and the highest in June, 2.24 inches.

An inch of rain means a gallon of water spread over a surface of nearly two square feet, or 3,630 cubic feet—100 tons upon an acre. For snowfall the record of the year 1827 has not yet been broken. In that year on the 16th and 17th of February the fall in the neighborhood of Montreal was between 60 and 70 inches, converted into water, however, this light, dry snow would not represent much.

### AN INDIAN SHOW FOR GERMANY.

Professor Jacobson and his brother departed on the "Olymphian" en route to Berlin. They were accompanied by nine Indians from the west coast, of the Bella Bella tribe, intended for exhibition at the Royal museum at Berlin. If the Indians could conceive the amount of land and water they must travel over before reaching Germany, the strange sights of the great cities, and hundreds of novelties to them, life would appear a great conundrum and it would be hard to prevail upon them to forsake their primitive existence and manners. Each of these indians receives $20 a month and all expenses during their absence, including transportation both ways. They will be quite civilized when they return a year hence. The Professor carried several tons of curios with him, which cost over $4000. He has purchased and shipped from this coast in all about $16,000 worth of Indian curios.—*Victoria, B. C., Colonist.*

### JUST A TRIFLE TOO CAUTIOUS.

It is still advisable for people who are camping out to keep a sharp look out and make sure of the character of nocturnal visitors, especially before using the rifle. It is well to be cautious, but not hasty. A case in point occurred near town the other night which resulted unfortunately for one of our neighbors. He had just bought a horse and taken it to his hay camp. In the stillness of the night he heard a suspicious noise, and peering cautiously under the edge of the tent he saw in the starlight what he declared to be an indian. Knowing that safety lay on the side of the one who got the drop on the other, our agricultural friend fired at the midnight disturber of his peace and cautiously withdrew to the safety of his tent to await the result. No further noise broke the stillness of the night, and when the return of daylight enabled him to see, he found that his aim had been true—the well directed bullet had done its deadly work, for there stiff in death and wet with the morning dew, lay the body of his new-bought horse. —*Saskatchewar Herald.*

**"I Don't want Relief But Cure,"**
is the exclamation of thousands suffering from catarrh. To all such we say; Catarrh can be cured by Dr. Sage's Catarrh Remedy? Your danger is in delay. Enclose a stamp to World's Dispensary Medical Association, Buffalo, N.Y.

**"Consumption Cure"**
medicine yet discovered for arresting the early development of pulmonary disease. But "consumption cure" would not sufficiently indicate the scope of its influence and usefulness. In all the many diseases which spring from a derangement of the liver and blood the "Discovery" is a safe and sure specific. Of all druggists.

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ENGLAND, 1886.
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**First Royal Exhibition Commission Since 1862.**

THE COLONIAL AND INDIAN EXHIBITION to be held in LONDON, England, commencing MAY 1st, 1886, is intended to be on a scale of great magnitude, having for object to mark an epoch in the relations of all the parts of the British Empire with each other.

In order to give becoming significance to the event, a Royal Commission is issued for the holding of this Exhibition, for the first time since 1862; and His Royal Highness the Prince of Wales has been appointed President by Her Majesty.

The very large space of 54,000 square feet has been allotted to the Dominion of Canada by command of the President, His Royal Highness.

This Exhibition is to be purely Colonial and Indian, and no competition from the United Kingdom or from foreign nations will be permitted, the object being to exhibit to the world at large what the Colonies can do.

The grandest opportunity ever offered to Canada is thus afforded to show the distinguished place she occupies, by the progress she has made in AGRICULTURE, in HORTICULTURE, in the INDUSTRIAL and FINE ARTS, in the MANUFACTURING INDUSTRIES, in the NEWEST IMPROVEMENTS IN MANUFACTURING MACHINERY and IMPLIMENTS, in PUBLIC WORKS by MODELS and DESIGNS; also in an adequate display of her vast resources in the FISHERIES, and in FOREST and MINERAL wealth, and also in SHIPPING.

All Canadians of all parties and classes are invited to come forward and vie with each other in deavouring on this great occasion to put Canada in her true place as the premier colony of the British Empire, and to establish her proper position before the world.

Every farmer, every producer, and every manufacturer, has interest in assisting, it having been already demonstrated that extension of trade always follows such efforts.

By order,
JOHN LOWE,
Sec. of the Dept. of Agriculture.
Ottawa, 1st. Sept., 1885. 3w3

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Auction Sale of Timber Berths.
DEPARTMENT OF CROWN LANDS.
(WOODS AND FORESTS BRANCH.)
Toronto 10th August, 1885.

NOTICE is hereby given that certain territory on the North Shore of Lake Huron will be offered for sale by Public Auction, as timber berths, at the Department of Crown Lands, Toronto, on Thursday the Twenty-second Day of October next, at one o'clock p. m.
B. PARDEE,
*Commissioner.*

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and condition of sale, will be furnished on application personally, or by letter to the Department of Crown Lands, where also maps of the territory can be obtained.

*No unauthorized Advertisement of the above will be paid for.* 4L17

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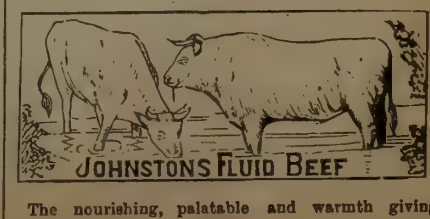

The nourishing, palatable and warmth giving qualities of Johnston's Fluid Beef has caused this invaluable preparation to before a favorite and fashionable beverage for the winter season. It is now obtainable on draught at the leading hotels and restaurants throughout the Dominion 18L7

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Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion

All communications, orders and remittances shoulp be addressed and made payable to THE PETERBOROUGH REVIEW PRINTING AND PUBLISHING COMPANY (LIMITED), Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., OCT. 15, 1885.*


A MAN named Magloire Roberge was cut in two by a saw, in a mill near Arthabaskaville, Que., on Oct. 10th.

THE Rathbun Comyany have an order from Ottawa for 300,000 ft. of cedar lumber to be used for stringers for new boardwalks.

THE schooner Onward, bound to Milwaukee with a load of lumber, went ashore at Gill's pier, five miles north of Northport, Mich., during a recent gale.

IN order to evade the 10-hour law, Saginaw valley operators in the woods are having contracts printed for more than 10 hours work each day, which they require each man employed to sign.

THE tug McArthur, with a large raft in tow, ran into Cobourg storm bound Friday night, and remained until Monday evening. She brought the tow from Lake Superior, her destination being Quebec.

THE Ludington, Wells & Van Schaick Company of Chicago, recently purchased 600 acres of pine land on Point river, Marquette county, Mich., for which it paid $48 an acre. The land is estimated to have on it 9,000,000 feet of pine.

A PARTY of surveyors is in the upper peninsula, Mich., running lines for the Canada, La Crosse & Southwestern railroad. The line has already been run from La Crosse, Wis., to Negaunee, Mich., to which terminal surveys will be completed in October.

A SUDDEN rise in the Snohomish river, W. T., lately, broke the Pillchuck boom and let loose 1,500,000 feet of logs. The whole lot went out to sea. About 1,000,000 feet were saved and turned into Ebey s ough, 100,000 feet going out on ebb tide and drifting into Port Susan bay. Through the breaking of the other booms it was thought that not less than 2,000,000 feet of logs went out to sea, about three-fourths of which were saved.

JARRETT & CUSHING are about to erect a steam sash and door factory at Calgary.

THE prevalence of small-pox in certain sections at the present time should cause lumbermen to be cautious and careful so that the disease may not find its way into the woods. When men are engaged who reside in places where the disease exists, care should be taken to see that there is no danger of the infection being carried into the camps. With proper care there need be no alarm, but to be safe, and for the safety of the men in the camps, care should be exercised. Lumbermen should see that their agents pay attention to this matter.

## WOOD-WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the U. S. Patent Office, Sept. 29th, 1885, is specially reported by Franklin H. Hough, solicitor of American and foreign patents, 925 F. Street, N. W., Washington, D. C.:

327,343.—Lathe, boring—H. B. Stevens, Buffalo, N. Y.

327,322.—Lumber drier—A. M. Schilling, Chicago. Ill.

326,030.—Lumber drier—H. S. Smith, Brooklyn, N. Y.

327 346.—Planing machine—H. B. Stillman & W. F. Paterson, Boston. Mass.

327 189.—Planing and polishing lumber—W. R. Norris, Fort Ann, N Y.

327,015.—Saw handle—R. E. Poindexter, Indianapolis, Ind.

327,428.—Saw mill, band—D. K. Allington, East Saginaw, Mich.

327,103.—Saw mill head block—G.M. Pelton, Belmont. N. Y.

327,416.—Saw sharpening device—W.Tucker, East Brookfield, Mass.

327,270—Saw swage—N. Johnson, Jasper, N. Y.

327 303.—Saws, Device for operating vertical—C. W. Page, Chathamet, Washington Territory.

327,203.—Wood dressing machine—C. D. Smith, Templeton, Mass.

PATENTS ISSUED OCT. 6.

327,903.—Mumber drier—C.F. Starkweather, Pullman, Ill.

327,588.—Planing machine—F. J. Plummer, Boston, Mass.

327,968.—Planing and turning machine—H. S. Stillman & W. F. Paterson, New York, N. Y., and Boston, Mass.

327,736.—Saw, drag—F. C. Storrs, Hudson, Ind.

327,774.—Saw filing machine—J. W. Dale, Du Bois, Pa.

327,792.—Saw frame—S. Hale, Bloomfield,

327,776.—Saw handle—C. Elsehardt, New York, N. Y.

327,574.—Saw mill—J. S. Miller, Erie, Pa.

327,637.—Saw mill dog—E. S. Woodworth, Allegheny, Pa.

327,609—W. O. Smith, Boston, Mass.

327,651.—Saw table gage—J. D. Bradshaw, Providence, R. I.

## FIRES IN THE FOREST.

ACCORDING to reports received of the discussion in the American Porestry Congress, it is the opinion of one lumberman of large experience that lumbermen need not loose so much by the forest fires. If lumbermen, Mr. Little, of Montreal, is reported to have said, would take the same care of his forest that he does of other property, he would not loose as much as he does. Left as he almost always leaves it, the laws of cause and effect would have to be suspended if fire did not follow. When really accidental fire does run through (except on peaty soil), the trees are not destroyed, they are merely scorched on the outside, and if cut at once, as they always are in lumbering regions, they are worth little, if anything, less than other trees. When lumbermen come to value permanent forests we shall here little about fires. Most of them value the woods only as affording them one crop, and after that the deluge. France has as much dry weather as we have, yet she does not lose one-tenth of one per cent. by fire.

Such is the testimony a lumberman of experence gives. When so much material for the flames is left in the woods, within their easy reach, it is indeed not a matter for surprise that destructive fires do occur. The tops and branches, which become very dry and are often left in heaps, are too frequently placed as if they were almost intended to feed a fire. Some lumbermen, as Mr. Little's statement, that neither he nor his father ever lost one per cent in any on year through fire, shows, understand this so well that they do not leave their forests in such a state. The evil will not, in all probability, be entirely removed, until all lumbermen appreciate the value of all the lumber they possess, or until it becomes so valurble that it will pay to remove the most of it, that it may be placed on the market.

Still, if care was exercised in this matter, solely with a view to preventing fires, it would pay, for much valuable timber would then be saved that otherwise becomes the prey of the flames.

## SOWING SEEDS FOR FUTURE FORESTS.

*To the Editor of the Canada Lumberman.*

SIR,—Many of your readers, no doubt, who have not at present the time for planting may yet intend in a year or two to give their farms the benfit of some wind-breaks and plantations When ready they will be obliged to go to the forest for young trees, a matter of considerable labor, or to buy of the nurserymen one of considerable expense. Let me suggest that instead, if they sow the tree seed, they will by the time they need them have on hand as many thousand young trees as they desire with far better roots than the forest seedings, and in a position much more handy for tranference to their ultimate stations This has been a pretty good seed year, and this month is the time for gathering the following seeds:—Hard Maple, Ash leaved Maple, or as it is now called Manitoba Maple, Sycamore, Mountain Ash, English and Native Ashes, Basswood, Buckthorn and Hawthorn, Locust, Oaks, Hickories, Walnuts and Butternuts, Beech, Chesnuts, Pines and other evergreens. Of these, such as have a pulpy covering will need bruising with a hoe or macerating through the hands, the pulpy matter then washed off and the seeds partially dried, when mixing with sand will facilitate the sowing process. The rest should be kept in a cool dry place till they can be sown. They should be sown in light rich loam, but if obliged to use clay soil covering the seed with sand does well. It is well to cover the seed twice the depth of itself and tread it firmly down, then cover all with about two inches of leaves, straw, corn-stalks or strawy manure. They must be so mulched to ensure success. In the spring, this, if of a fertilizing nature, can be raked between the rows and keep weeds down and the soil moist; if too bulky remove it altogether. Next summer from a small bed thus treated, you will obtain thousands of plants of any variety you have sown, and these transplanted the next season will be fine young trees.

Yours, &c,

R. W. PHIPPS.

Toronto, Oct. 9th, 1885.

## THE LARGEST TREES.

"Here are the extremes of plant life," said a botanist, holding a miscroscopic slide in one hand and a picture of a great tree in the other. "This is a diatom, one of the smallest vegetable organisms, invisible to the naked eye, while this," flourishing the picture, "is the largest tree as to height in the world."

"One of the sequois?"

"No," was she reply. "Uncle Sam has done pretty well with trees, but when it comes to height the British lion takes the belt, as the loftiest trees are found in the Australion dominion. This picture is a photograph of one found by a traveller in the Black range of Berwick, and it is estimated at 500ft. from the ground to the topmost branch. Think of it a moment," continued the speaker. "Five hundred feet means a good deal. It would dwarf the Bartholdi statue; Trinity would look like a telegraph pole compared to it; the Brooklyn bridge would be nowhere; Strasburg Cathedral would be 54ft. below the birds' nests on the top branches, and, if the giant was placed by the side of the pyramid of Cheops, the leaves of the encaluptus would be still 25ft. above it. That's the kind of trees they have in Australia, and they are undoubtedly the largest on the globe, though it is claimed that the California specimens are more impressive from their greater bulk. The gum trees, as the Australian giants are called, are a comparatively modern discovery, and for a long time it was impossible to approach them, but now roads are broken, and travellers can ride directly to the foot of several. One of the first known, a Kanni eucalyptus (Eucalyptus colossea) of botanists, was discovered in a glen of the Warren River, Western Australia. When found by a party of riders, it was prostrate upon the ground, and four riders abreast entered the trunk, that was estimated at 400ft. in length. Another species, E. Amzgdalina, measured by Boyle in the gloomy forest of Daudenong, was found to be 420ft long, while another, now growing on the Black Spur, ten miles from Healesville, is 480 feet high. These measurements, you see, are far ahead of the California trees, one of the largest, that I think is known as "The Father of the Forest," only measuring 435 feet, and being 110 feet in circumference at the base. The one called 'The Mother of the Forest' measures 320 feet in height, with a circumference at the base of 90 feet. When they felled the famous 'Traveller' in 1853, and, by the way, every man that had a hand in it ought to have been sent to Dry Tortugas, it took five or six men nearly a month to bring it to the ground, and they had all kinds of tools to work with, pump-augers, wedges, and everything you could think of."—*Timber.*

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine.. | 3,027,559 | 2,135.267 | 2,690,439 |
| White Pine..... | 6,292,583 | 3,686.594 | 2,616.462 |
| Red Pine..... | 443,974 | 309,940 | 69,673 |
| Oak ..... | 1,715.696 | 706,633 | 1,460,443 |
| Elm ..... | 309,261 | 651,722 | 981,126 |
| Ash ..... | 256,004 | 410,206 | 257,675 |
| Basswood ..... | 2 244 | 4,544 | 95 |
| Butternut ..... | 1,028 | 1,160 | 3,083 |
| Tamarac ..... | 5,283 | 19,113 | 3,622 |
| Birch & Maple..... | 138.803 | 201,141 | 380,383 |
| Masts & Bowsprits... | —pcs | —pcs | —pcs |
| Spars ..... | — pcs | 41 pcs | 17 pcs |
| Std Staves..... | 627.0 1.22 | 66.9.2 20 | 76 6.0.17 |
| W. I. Staves..... | 510.2.3.5 | 176.3.2.19 | 185.9.3.25 |
| Brl. Staves..... | 87.2.1.19 | 2.4.2.29 | 195.9.3.25 |

JAMES PATTON,
Supervisor of Cullers.

Quebec, Oct. 9.

## HOW TO RECOGNIZE GOOD TIMBER.

It may be interesting to your readers to know that the microscope is of great value in testing the qualities of wood. It is stated that if the microscope condemns the sample, further delay in testing is not necessary. The larger the specimens to be tested the greater will be the gain the microscope will effect in avoiding the cost of further proof. Samples and micro-photographs of bridge timbers which have proved faulty, but which a preliminary examination with the microscope would have thrown out, have been exhibited in America. The timber from which these specimens were taken was a fragment from a railway bridge wrecked in 1879. The timber was so excessively poor, that on mounting a specimen on the plate of the microscope, its weak and porous nature was at once apparent. The annular rings appeared about three times as far apart as they would be in good wood of similar kind. The medullary rays were few in number and short in length, whilst in good wood, they are of considerable length, and so numerous that tangential sections present the appearance of a series of tubes seen endwise on a number of parallel chains. After one seeing and comparing samples of good and bad wood, it is easy to recognize the difference with a pocket magnifying glass. The trunks and limbs of exogenous trees, as it is well known, are built up of concentric rings or layers of woody fibre, which are held together by radial plates acting like tree-nails in a boat s side. The rings, representing successive years' growth are composed of tubes, the interstices of which are filled with cellulose. The slower the growth of the tree, the thinner these yearly rings and the

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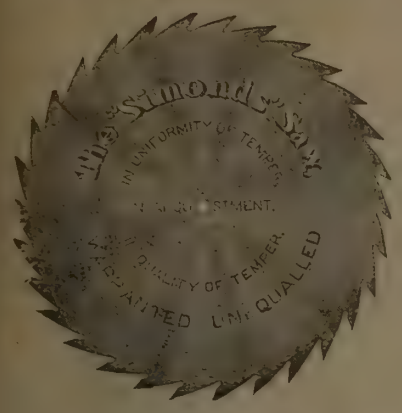


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denser and harder the wood, other things being equal. Not only is the closeness of texture an indication of the hardness and strength of the timber, but the size, frequeney, and distribution of the radial plates which bind the annular layers together may be taken as a very close illustration or sign of the character of the wood and its ability to resist strains, especially a breaking stress. The micro-photographs of good and bad show that in the strong kinds the concentric layers are close in texture and narrow in width and the radial plates numerous, wide. long and stout, while in poor stuff the opposite characteristics prevail. The practical application consists in having such enlarged photographic sections longitudinal and transverse of standard pieces of timber bearing a certain known maximum strain, and rejecting any piece which the assisted eye detects to have fewer rings per inch of diameter, fewer fibres or fewer radial plates per square inch of section, or to use such pieces with a greater factor of safety. The advantage of the method is that it allows all timber for important positions to be tested before being used. —*Journal of Progress.*

### LIQUID GLUE.

With any desired quantity of glue, use ordinary whiskey instead of water. Break the glue in small fragments and introduce these in a suitable glass vessel, and pour the whiskey over them. Cork tightly and set aside for three or four days, when it will be ready for use, without the necessity of applying heat. Thus prepared, the mixture will keep maltered for years and will remain permanently liquid, except in cold weather, when it may be found necessary to place the bottle in warm water for a little time before using. The vessel in which it is kept mus , of course, be kept always tightly corked, to prevent the volatilizing of the solvent.

A French formula for a liquid glue directs that a solution of eight ounces of glue be made in a half-pint of water, in the usual way, by placing it in a vessel of water until solution is effected. To the solution it is directed that 2½ ounces of strong aqua fortis (nitric acid) be added, stirring all the while. Effervescence will take place with the evolution of orange nitrous fumes. When all the acid has been added, the liquid is allowed to cool. It should be kept in a well stoppered bottle, and will remain permanently liquid. It will neither gelatinize nor putrefy, and is said to make a very serviceable cement for various domestic uses, and as repairing cabinet-work, chinaware, etc.

Another formula directs that a jar or bottle be filled with glue broken into small fragments, and the same covered with acetic acid. It should then be placed in a vessel of hot water for several hours until the glue is desolved.—*American Druggist.*


**"The Proper Study of Mankind is Man,** says the illustrious Pope. If he included woman in the list, he would have been nearer the truth if not so poetical. Dr. R. V. Pierce has made them both a life study, especially woman, and the peculiar derangements to which her delicate system is liable. Any women in the land who are acquainted with Dr. Pierce only through his "Favorite Prescription," bless him with all their hearts, for he has brought them the panacea for all those chronic ailments peculiar to their sex; such as leucorrhœa, prolapsus and other displacements, ulceration, "internal fever," bloating, tendency to internal cancer, and other ailments. Price reduced to one dollar. By druggists.


### FOREST TREES.

Eleven years ago I examined the stumps of two white oaks and the grave of a third, which told this singular story by circumstantial evidence, so strong that it could not be doubted. In the year 1502 an acorn fell about one and a half miles from where I am now writing (Rockville, Ind.), and by favorable chance sprouted and grew to an oak. In 1594 another acorn sprouted about 20 feet distance from it. It may have grown on the tree before mentioned, as it was then 92 years old. In 1731 a tornado from the northwest blew down a still older oak which, in its fall, struck against and greatly damaged the top of the one born in 1502. There is to-day the well-marked grave of the fallen giant, the dirt piled upon the southeast side of the hole, and a long depression in the ground where the trunk fell and rotted till not a vestige of its wood can be seen to-day (though some traces of the bark of the roots can). This depression points to the stump of the damaged oak. The two younger had been freshly cut down when I examined them. The stumps were about four feet across, and there was not over an inch difference between their diameters, though ninety-two years difference in their ages. The younger had large, healthy top, no broken or dead limbs, and it had put on rings of growth from the beginning of more than average size. The older one had been injured in its branches by the fall of the still older one before mentioned, in 1731, and for fifty-seven years had put on very small rings of growth (about 25 to 30 years to the inch instead of twelve to fifteen as it should), when a new set of branches developed to take the place of the damaged ones, and the rings began to increase in size and gradually attained to the average. I examined their tops, which coincided with what has gone before. There were the peculiar knots in the top of the older one where dead limbs had rotted off and were healed over. (Any expert timberman will readily recognize them.) During this delay the younger oak caught up with the older one in size. The size of a tree is a very uncertain indication of its age.

In all the cases of the hundreds I have examined of the oaks (the oldest trees of the forest I think), I never saw but one that was here when Columbus discovered America. That one was by far the largest I ever saw, and was over 600 years old, about twice the age of the other largest ones. I could not get its exact age, as it was so decayed near the heart I could not distinguish the rings, It was between six and seven feet in diameter, and forked about sixty feet up, and each fork was as large as the other largest trees. It was not sound enough to make good lumber, being what in this region is called "doughty," a state between soundness and rottenness. It had been down a year before I examined it (being out of the country before it was cut), so that it was very difficult to examine it. I have mislaid memorandum of it, but it would be about as follows: At the age of about 200 years it had some misfortune which caused it to form about 100 small rings. It then regained its health and formed normal rings for about 140 years. Then another mishap caused small rings till within the past fifty years, when it was putting on fair growths again. This tree was about one and half miles southeast of Rockville, Ind., and was noted amongst hunters and woodmen. It was a disagreeable showery day when I examined it, and for that reason I did not examine its top to see if dead, and lost, and healed over limbs coincided with the small rings, but I have often done so in other cases, and found them to coincide.

Last May, 1884, I examined a sycamore and water elm in the Wabash river bottom, the former six feet in diameter and the latter five, each 180 years old. They stood about 150 feet apart. They were standing on the upper end of a newly-made bottom (I mean new as compared with the higher and older bottoms a little more inland from the river, say 200 years old). This was the largest sycamore I ever saw that was sound to the heart. I have seen hollow ones nearly eight feet in diameter. This tree seems never to have met with any mishap till the log man came along, as the rings of growth were all unusually large.

These trees very probably sprouted 12 to 15 feet below the present surface of the bottom. They generally begin life on the lower end of river sandbars, and as sedimentation builds up the surface they put out new surface roots at every two or three feet of elevation. Such trees, with their several sets of roots, are often seen in drift piles, and also still standing on the verge of a steep river bank where one side is exposed by the erosion of the river. Their roots are often hollow like their trunks, the hollow, and root too, decreasing in diameter downward till it terminates in a point, like a cone standing on its point. In the southwest corner of this county is a hollow cottonwood stump on what is now a high bottom of the Wabash in which the hollow extends downward 12 feet. Mr. Joseph J. Daniels, an intelligent, observing man, on whose land it stands, told me so. Such silting up over the surface roots would kill most of the upland trees, or those that grow from the seeds on the high bottoms.—*John T. Campbell in American Naturalist.*


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The Limits are supposed to contain about two hundred millions superficial feet. (An estimate is now being made.)

The Timber is mostly Oregon Pine of an excellent quality. The average haul, only about half a mile to floatable water. The run thence to mill, 30 miles.

Full particulars furnished on application.

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### BURNING SAWDUST.

Every once in a while we read two or three columns about "how to burn sawdust." Some people make an awful fuss about trying to burn sawdust, especially if it is green, or wet There is no trouble in burning sawdust under steam boilers, if all the conditions are favorable.

Some men say we must have a Jarvis furnace, in order to burn sawdust; some say we must have a blower, but that kind of talk is all nonsense. Sawdust needs a pretty fine grate. It cannot burn if it falls through the grate into the ash-pit. A chimney large enough to give good draught is absolutely necessary.

Sampson put in a tubular boiler, 5x15 feet and connected his uptake with a 11x17 chimney flue. The building was originally a dwelling house. No new chimney was built, but the partition was knocked out of the old one, making the two flues into one. Sampson tried to burn sawdust with the draft this old chimney gave him. He gave it up in less than a day and tried to burn coal. He gave that up also, and managed to keep up steam ten days with dry oak slabs worth $5 per cord Sampson put in a blower and forced the smoke up that miserable chimney. He burns slack and sawdust now. It keeps his fireman busy, and when the steam gets "started down," it is just all the poor fireman can do to keep that Corliss engine from "pumping." And when the steam gets down so low that a Corliss engine refuses to cut off, thereby taking steam during the whole stroke, then it is time for a reform. This engine will notdo good work when the steam pressure is less than 60 pounds—unless it is a low pressure concern. 60 pounds used to be the rule for the amount of steam carried by ordinary boilers for driving engines. It is different now. It has been found more economical to carry 70, 80, or even 90 pounds pressure per steam gauge.

To burn sawdust, we have a good large chimney, thus securing good, natural draught. When this is secured, and a good grate is provided, there is no reason why sawdust will not burn well and keep up steam also.

"How do you manage to burn so much sawdust?" we asked the engineer of a large saw mill. "We can burn it without any trouble," said he. "Getting it to the fire is our difficulty. It is quite a job to fire sawdust and do it well It burns through so quickly that half your grate is bare before you know it; this lets cold air get to the boilers, steam goes down and you growl because you can't burn sawdust."

Keep a thickness of sawdust on your grate according to the amount of draught your chimney gives. If it is not very strong a thin fire must be used, but if the chimney will almost draw up unburned sawdust, then we can carry a thicker bed of dust upon the grates, and burning sawdust will be much less work.

When a man says he can't burn sawdust, and you know that chimney and grate are sufficient, then just open the furnace doors and see the condition of the fire. Probably you will find 16 inches of green sawdust piled back of each door. You will find the back of the grate entirely bare, the corners full of dirt and rubbish, while a fringe of fire is struggling around the edges of these heaps of fuel.

The man who has no trouble with burning dust, always keeps a level fire. You never catch him with lumpy fires, or dirty corners, or see the cold air drawing through his grates to cool off the boilers. He never lets a layer of fuel get entirely burned out before he fires up again. Some chaps get into the habit of burning the charge almost to a tinder before again firing. They don't consider that ten hundred little streams of cold air are continually trying to get at the boiler through the grate bars. They let the fire burn down until there is hardly enough left to ignite the fresh dust, and then their steam goes down while they are waiting for the fire to come up.

The successful dust burner will fire up while he has a glowing bed of live dust. He never waits a minute too long. He is on deck with his big shovel at just the right time. He don't put in too much at one time to roll the smoke up chimney and over the neighboring country like a Naragansett fog.

We find that burning sawdust requires no special rig. A well proportioned furnace is all that is required for plant, but we must have a special man. Dust burning is an art, and depends almost entirely on the man who attempts it. Some men can never burn sawdust; they never burn coal or wood to advantage. Such men double the fuel and three times the help, and then can't turn out as much steam.

Did you ever know of a fireman who would run 8, 10, or even 12 boilers, and then always seem to have plenty of time to talk with every body who chanced to come along? Probably you have seen such a man. Perhaps he used to work for you, and you thought he was having such an easy time that you could squeeze down his pay a quarter, so you tried it, but fireman wouldn't be squeezed and jumped the job. You found it took two firemen and two coal heavers to do this fireman's work.

Such a man will have no trouble in burning sawdust, or any other fuel you may have. It all depends upon the "know how" of the man. Anybody can shovel coal or dust into a fire box, but that is not burning it to advantage, by any means.

He who would be a successful sawdust burner must keep his eyes open to every little point. There is no great principle underlying this art. It is just like many other branches of science where attention to detail, trusty experience, will secure good results even with the crudest of apparatus.

A Jarvis furnace is good for sawdust burning, but it is not necessary by any means.—*James Hobart.*

### THE CARE OF HARDWOODS.

A correspondent of the *Saw Mill Gazette* makes the following suggestions:—

It has occurred to me that a few suggestions with reference to the care of hardwoods might be timely, and perhaps well received.

Hardwoods are growing more and more into favor for interior decorations. First class residences, offices, etc., since the revival of Gothic features in architecture, are almost exclusively finished in hardwood, and choice oak, cherry, etc., clear and fine grained are in lively demand.

It is to be supposed that every man who is sawing these woods for future market desires the highest price for them; and yet, lumber is daily arriving in the market which is heavily discounted on account of its bad condition.

The acids of oak are strong, and when two pieces of plank are placed side upon side a souring, moulding, darkening process takes place, and this stain cannot be removed, and is even intensified by kiln drying.

It seems to be the custom of many to place wide boards or planks between layers for ratlines, one at the centre and one at each end of pile, and the result is that every plank is stained at the point of contact with these wide ratlines. A strip for this purpose should not over two inches wide and it would be better if no more than 1¼ inch.

Another reason for the rejection of or discount on hardwood is, that using for ratlines from the lot that is being piled necessitates a pile 12, 14 or 16 feet wide, and such a pile cannot be well ventilated. As a consequence much of the lumber in the centre of the pile is browned and streaked in hot weather by the gaseous vapor which has evaporated from the lumber during the day and settled back upon it at night. This gives the lumber a dozy appearance, and a hardwood finish should be bright and cheery. No pile should be more than eight feet wide, and width of six only would be much better.

Again, the top of a pile dries faster than the bottom, because the top gets more air, and besides much of the moisture arising from the earth is absorbed in the lumber nearest it thus retarding the drying. Prudence would suggest the setting of posts or short cuts of trees in the ground and timbers placed upon them in three lines for bearings from three to four feet above the ground. If the piles have a space of three feet between them and protection from the sun above them, that will be about the best arrangement for out door drying that can be devised.

The demand of the hour will be the demand for several years to come—yard-dry lumber of choice grades, and the lumber cannot be yard-dry, in the sense in which manufacturers understand it, unless it is as many years old as it is inches thick.

If hardwood lumber could be as easily kiln-dried as soft woods, then lumber of less age could be successfully used. But 1¼ and 2 inch oak or ash are kiln-dried at great risk of "honeycombing" if they are of less age than that I have mentioned, and kiln-drying is a necessity in the use of plank of any age.

### MR. PHIPPS AT THE BOSTON CONVENTION.

The American Forestry Congress has been holding its sitting daily in Boston since Wednesday, and many valuable papers and addresses have mared the sittings. On Thursday Mr. R. W. Phipps, the Ontario commissioner on forestry, read an interesting report on his work, which he had been officially engaged in for the past two years. Having in view the advisability, indeed necessity, of caring for forests and and replanting, he had been engaged in spreading far and wide how these desirable things could be accomplished. From everyone willing he had obtained the results of experiments in forestry, and "although frequent suggestions in that direction have been thrown out, no scheme has yet met with such general favor as to warrant legislation in the way of granting exemption from local taxation to such owners of forests as shall agree to leave them uncleared. In the more wooded parts of the country it was found that taxes were so low on woodland that the remission would form no inducement. In those localities where it would, the county councils have not yet endorsed the plan. The Government of Ontario gives for all trees planted on roadside or farm boundaries, 25 cents each bonus after three years' growth, on condition that the township approve the act and pay one-half the bonus. Many thousand trees have been planted under this act. As yet we have not in Ontario placed trees to any amount in solid plantations of acres in extent. A very few experimental plots is all we can point to, and on such as these no bonus is yet given. I trust however, shortly to be able to report a change in both these points. Neither have we been able to agree on a plan for removing the June rubbish, which is so dangerous in creating and extending forest fires'"

LUMBERING WASTE.

After referring to the great waste in cutting trees found afterwards too small for lumbering, and often left floating by thousands as logs in rivers, Mr. Phipps went on to say that "the true way is to preserve the forest, but cut out and sell yearly the large trees. I should recommend where practicable, a 15-inch limit."

The passing of the "Fire Act" to prevent careless burning, was passed in Ontario some years ago. As it was not properly enforced, the Government last season on his report "issued a notification to lumbermen that on application being made, the Government would pay half the cost of any number of men the lumberman might think necessary to enforce the Fire Act near his limits. This movement is what was needed. These men whose business it is to warn, observe and inform, will prevent many fires and save much money, and also will enable to calculate that his forest will not be destroyed by fire. Therefore he will not cut half-grown trees lest they be burned, but will leave them to grow."

He had also received testimony that planted trees for breaking the force of the wind had always resulted in benefit to crops. The windbreaks are generally single rows of deciduous trees or evergreens. "Some complaints having been made that the telephone and telegraph men cut valuable trees to make room for their wires, I have inaugurated an arrangement with the companies by which they promise, wherever possible, to run wires only on the north and west of roads. If, then, farmers plant their shelter belts only on the north and west side of their farms (the side most needing shelter), they will always be on the opposite side from the wires. Perhaps this suggestion may be of service in the States."

RUST IN WHEAT AND FORESTRY.

"I should like to give my experience concerning rust on wheat, in connection with forests. It was 25 years ago, we were clearing a then thickly wooded district—the slope of a range of mountain in fact. We got then, surrounded by the forests as we were, very good crops with slight labor. Right under the lee of a great wood I knew a farmer get by summer fallowing 60 bushels to the acre of splendid fall wheat, the sort of wheat which, in this, our midge-stricken day, we never see. Occasionally we had rust; not much; the vitality in the soil seemed to carry the crops through all dangers. Still, farmers used to say: 'When we get more cleared, and let the air in, there will be little rust.' How prone we are to cut away the branch we are standing on; ay, and encourage one another, and hold agricultural meetings, sapiently pointing out to one another the most rapid way of breaking our necks! That whole slope is now almost denuded; the crest, which should have been preserved in wood, will soon be bare; the wash yearly of the upland is very injurious to the soil; and I hear this year that the rust is much worse than ever. I would say, therefore, let us not suppose, that by clearing away all the trees we will prevent rust. These examples proves we will not. The way to keep the land in condition for wheat is to preserve some forest near it, and the crops on that land will have a vitality (or else my experience goes for nothing) which will carry them successfully to ripeness."

Mr. Phipps finally referred to the advantage of having an official appointed in every State in the Union and province in Canada to attend to forest affairs, write and disseminate forestry literature, and advance in every way the cause of the forest. It will not be long till openings present themselves whereby in each locality tuch an official, if his heart be in the business, will discover ways of working for the general benefit.

### A MAN ATTACKED BY COYOTES.

Heretofore coyotes have been regarded as harmless, but the experience of Senator Walker last week contradicts this theory, and shows that when rendered desperate by hunger they will not hesitate to attack anything. The Senator left the Oreana Mine, of which he is Superintendent, late in the evening of Saturday last, intending to inspect the road leading to the coal pit of the company on Walmsley Gulch. The road from the mine to the gulch leads through dense patches of pine and tamarack trees interspersed with sage brush and grease-wood. It was while passing through one of these dense thickets that the Senator was suddenly surrounded by a pack of howling coyotes. Quickly dropping a leg of mutton he was taking to the coal pit, the Senator soon found himself perched in the topmost branches of a small nut pine tree which fortunately happened to be near at hand. Although as brave as a lion and in possession of a trusty Winchester rifle, the Senator's indignation was so great that he could hardly maintain himself in the tree, especially when he imagined he could hear the miserable brutes trying to climb up to him. Finally, however, his trusty rifle began to speak and dead coyotes soon covered the ground. After exhausting his shots the Senator was compelled to sit in the tree top and watch the pack fight and snarl over the bones of the slain until daylight, at which time he was happily rescued by a party of hunters from Virginia City.—*Dayton (Nev.) Times.*

THE Monson Waterpower and Manufacturing Company is to be organized in Portland, Maine, October 5th. The company will improve the water power and mills at Monson, Maine. The business will consist of lumber manufacture, pulp making, and wood working. Timber land to the extent of 10,000 acres, additional to that already belonging to the plant, has, or will be, purchased. A large pulp mill will be erected, and also a wood-working factory.

### An Important Arrest.

The arrest of a suspicious character upon his general appearance, movements or companionship, without waiting until he has robbed a traveller, fired a house, or murdered a fellow man, is an important function of a shrewd detective. Even more important is the arrest of a disease which, if not checked, will blight and destroy a human life The frequent cough, loss of appetite, general languor or debility, pallid skin, and bodily aches and pains, announce the approach of pulmonary consumption, which is promptly arrested and perman-

# Chips.

PORT WILLIAM, N. S., will hensforth be known as Port Lorne.

DURING the month of August 28,000,000 feet of lumber passed though the Sault Ste. Marie canal as compared to 23,000,000 during August, 1884.

AN upper peninsula paper states that Saginaw valley lumbermen are establishing branch offices in the Lake Superior region, to look out for the purchase of logs and lumber.

THE bark Safara, Capt. McDougall, which sailed from Sharpness September 26th, for Miramichi, has been burned. The crew have landed at Queenstown.

THE Simms Brush Company, at St. Johns, N. B., are running their factory night and day to enable them to fill large orders recently received from Prince Edward Island and Newfoundland.

A WATCHMAN on the boom of the Marquette Saw Mill Company, at Marquette, Michigan, went to sleep, and as a consequence 2,000,000 feet of Tim Nester's logs escaped and floated out into the lake. They were recovered by tugs.

THE schooner Anna Tomine from Chicago, loaded with lumber, became waterlogged and was capsized on Oct. 5th, near Grand Haven, Michigan. The crew was saved by a life-saving crew.

A MR. PIERCE is to erect a mill for the manufacture of a new patent ladder, at Martinville, Que., and also for shingles, bobbins, etc., the present mill and engine being too small for his purpose. He will employ a good number of men in his business.

THE quantity of sawed lumber exported from Ottawa to Montreal and Quebec this summer was larger than usual. The Blanchard & Williamson Barge Company had sixty barges employed in their business all summer as against only twenty the preceding summer.

A PULLEY thirty-four feet in diameter and weighing eigthy-three tons has just been made in England. It has grooves for thirty-two ropes, which, together, will transmit 1,280 horse-power, and the rim will have a velocity of more than a mile in a minute.

E. R. PHINNEY has purchased of Wells, Stone & Co. a tract of pine about four miles north of Coleman, Mich., on the south branch of the Tobacco, estimated to cut 10,000,000 feet of l gs The price paid was $28,000, and 3,000,000 feet of logs will be put in the coming winter.

THE flourishing establishment known as "Wood's Mills," at Smith's Falls, Ont., will soon be supplemented by one the finest little saw mills in the country. Mr. Wood has spared no pains or expense in fitting his saw mill out with the best machinery for the purpose. He expects to have it in running order in a very short time.—*Almonte Gazette.*

IF it is true, as is stated in a current news item, that in Kansas the farmers are chopping down walnut trees and selling the wood for fuel at $5 a cord, and that in Ohio a single walnut tree brought $400, the people in Kansas who own walnut trees must be acting in a very shortsighted manner.

MAJOR WALKER, of Calgary, N. W. T., is just receiving his last million of feet of saw logs of the cut of 1883, from his timber limits in the mountains. These will all be converted into lumber at the Major's mill on the Bow River here this winter. He purposes commencing operations immediately for a cut of from one to two million feet of logs for next season's business.—*Calgary Herald.*

A CORRESPONDENT of the *Farmer's Review* writing from the Wisconsin woods on the shores of Lake Superior, says:—It does not take any great measure of discernment for the traveller through those regions to see that the stock of white pine is becoming exhausted. This is shown by the kind of logs with which the mill yards are stocked. Immense quantities will be seen which will not average more than twelve inches diameter, and which a few years ago no lumberman would have thought of cutting.

## PRESERVING FORESTS.

The great importance of preserving forests was proved to Lieut.-Col. Playfair in a most forcible manner by what he had observed in Tunis. "In Roman times," said the gentlemen, speaking in the geographical section of the British Association, "the province of Africa and the territory of Carthage was the granary of Europe." But how changed was it now! Where once were magnificent Roman farms, there was practically but a desert. Only the scattered remains indicated what once had been. "The hill-sides were covered with nothing but sand," and all around was desolation, where once the rich soil had blossomed like a rose. And to what was this sad transformation due? To the destruction of the forests. The vegetable soil had in consequence been washed away into the valleys, where it now laid buried beneath several feet of sand and water worn pebbles. In Col. Playfair's opinion, there was no more striking instance of the importance of preserving forests, and this lesson is for us.


### The Poor Little Ones.

We often see children with red eruptions on face and hands, rough, scaly skin, and often sores on the head. These things indicate a depraved condition of the blood. In the growing season, children have need of pure blood by which to build up strong and healthy bodies. If Dr. Pierce's "Golden Medal Discovery" is given, the blood is cured of its bad elements, and the child's development will be healthy, and as it should be. Scrofulous affections, rickets, fever-sores, hip-joint disease or other grave maladies and suffering are sure to result from neglect and lack of proper attention to such cases.

Mild, soothing, and healing is Dr. Sage Catarrh Remedy.

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh. Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure. the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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For PURITY,
WHOLESOMENESS,
And STRENGTH
**It stands without a Rival!**

Pure Gold Manufacturing Co.
FAIRPORT, N.Y, and TORONTO, ONT.
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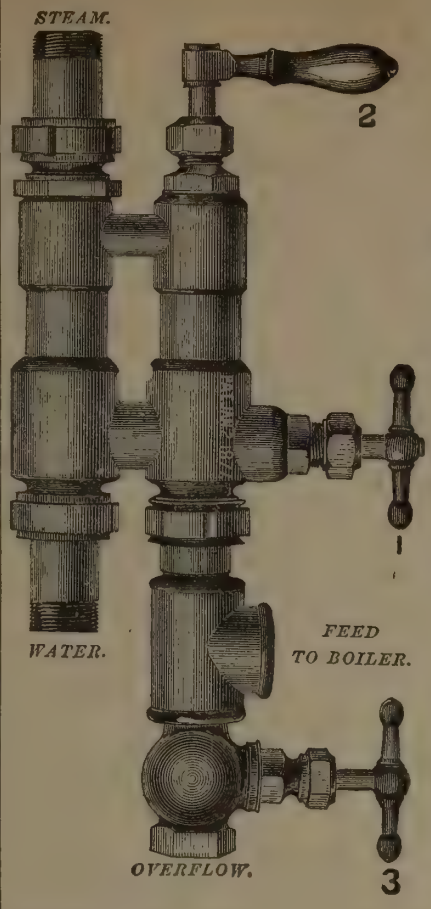


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**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

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**All sizes lift water 25 feet.**
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Manufacturers of Inspirators, Ejectors, and General Jet Apparatus. 1yl1

# Norman's Electro-Curative Belt!

*4 QUEEN ST., EAST, TORONTO.*




This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

LUNG INVIGORATORS
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## A. NORMAN, Medical Electrician

4 QUEN STREET EAST, TORONTO.

*N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination*

## Axes & Cross-Cut Saws.

CANADIAN AXES.

Both inlaid and overlaid steels, 10 patterns, from $7.00 upwards per dozen.

AMERICAN AXES.

Both inlaid and overlaid steels. eight patterns, from $10.00 upwards per dozen.

SILVER STEEL LANCE-TOOTH CROSS-CUT SAWS.

Warranted to be good temper or will be replaced. Special three square and extra fine cut flat files for these saws.

BLOCKING AND BROAD AXES

Of extra shape and quality. Samples of axe and saws sent to any address on approval and for selection.

## Geo. Stethem

Importer of Heavy and Shelf Hardware. Sole Agent for the B-4-Any Axe. 6l.17

## FILES- Now's the Time

Collect and Ship them to be

RE-CUT

BEFORE THE SPRING OPENS.

DO NOT WASTE

Your Money on Buying new, when the old ones will do. We pay Freight one way.

SHIP THEM TO-DAY

—TO THE—

## ONTARIO FILE CO.

150 FRONT STREET, EAST, TORONTO.
Agents Wanted Everywhere. 13l6

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

Oct. 9.—All the yards have done a fair trade during the past two weeks and lumber has moved from the cars readily, so that both retail and wholesale men feel in good humour, and hope for prolonged open weather, which would be considered a fair recompense for the late opening of the last spring work. The yards are all carrying a fair stock, but nothing that can be called a surplus, and all the retail men seem disposed to curtail their purchases in view of the approaching winter. Figures for the various grades of lumber are fully maintaind, and in the better qualities a tendency upwards is manifested on the local market. 1½ inch cut up is scarce, and likely to continue so during the winter months, as factory men generally seek to run up their stock of doors and sash ready for the spring trade.

The railroad companies are pushing for empty cars in order to meet the demands of their customers, especially those having to make shipments over the docks, the bulk of such shipments consists of stock lumber. Considerable of that class of lumber is now moving for Oswego, a few more cargoes will, however, close up the seasons work.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 0 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1¼ " " dressed | 23 00@25 00 |
| 1¼ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅞ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₱ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## MONTREAL.

*From Our Own Correspondent.*

Oct. 9.—Trade for the past two weeks has been of a very limited character, and nothing like the activity which usually takes place at this time is noticeable. Manufacturers appear to be pretty busy in the west, but here dullness is the prevailing feature in the market and likely to be for some time to come. Prices on the whole maintain their ground and with the moderate stock on hand are likely to continue do so. Prices at the yards are as follows :—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 22 00@24 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Base, " " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@22 00 |
| Hard Maple, ₱ M | 25 00@30 05 |
| Lath, ₱ M | 1 60@ 1 70 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

SHIPPING.

Shipping has been going on to a fair extent since our last report, and there are now about 9 vessels loading deals for U. K., and all the sailing ships in port are loading for South America. The latest rates of freight are by the Henerique for Liverpool, 46s 3d.; the Pensher for London at 50s. and regular liners 40s. to 50s. The following are the shipments for the past two weeks as recorded at the Custom House :—BK Stanwood, for Buenos Ayres, 404,480 feet pine lumber; BK. Belgium, for Buenos Ayres, 581,691 feet; SS Barmwall, for Hamburg, 9,957 boards, 20,090 deals and 1,136 deal ends; SS Toronto, for Liverpool, 12,223 boards and 9,083 deals; BK Nore, for deal f.o., 9,116 deals, 1,162 deal ends and 10,231 boards; SS Lake Superior, for Liverpool, 7 316 pcs. lumber, 9,933 boards and 7,406 deals; SS Celtic Monarch, for London, 9,012 boards and 15,728 deals: BK William Owen, for Buenos Ayres, 500,316 feet pine lumber; BK Mary Shaker for Buenos Ayres, 647,805 feet pine lumber; SS Montreal, for Liverpool, 3,473 boards, 1,435 deals and 4,854 pcs. lumber; SS Ontario, for Bristol, 3,504 deals; SS Lake Champion, for Liverpool, 1,119 deals and 4 070 boards; SS Bavaria, for Glasgow, 3,856 deals and ends, 9,987 boards and 10 000 feet lumber; SS Beina for Barrow on Furness, 10,870 deals, 502 deal ends and 6,905 boards.

CORDWOOD.

There has been a rather better demand during the past two weeks and wholesale dealers have advanced prices, although retailers say they cannot get any advance on their old rates. We now quote wood at the wharves and railway stations ex cartage as under :—

| | |
|---|---|
| Long Maple | $ 5 50 |
| Long Birch | 5 00 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1¼, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of Oct. 10th says :—There has been next to no market this week, for the reason there has been but few offerings. The port list has been for the week ending Wednesday showed but 118 cargoes, nearly the whole number having gone directly to the yard docks. On Monday there were probably not more than half a dozen cargoes at the docks, and on Tuesday and Wednesday there was not more than one or two on each day. During most of the week the market basin has been as deserted and quiet as a duck pond, save when a tug has taken a spiteful whirl about to find out what all the dullness meant.

The cause of the lack of offering on the market is partly attributable to adverse weather for the sailing craft, and partly to the determination of the manufacturers to hold their piece stuff for higher prices. Lumber at the mills is largely going into cross-pile, which is proof that the holders are not anxious to force their stock on the market at present prices. At the same time a large amount of lumber is being sold to arrive. This is the course cargo dealings are now takiug. The absence of offerings at the docks is leading to inquiry; for the current requirement continues in spite of the weather or the inclination of holders.

Short green piece stuff is now quoted at $9 thousand, an l nothing else—that is when sold on the market. It is sometimes sold at the mill in Muskegon directly to the yard men, which, of course, saves the commission at $8 75 delivered here. The meagre supply on the market naturally has a tendency to stiffen prices. Long joints are still wanted in excess of supply, and are occasionally arriving from Manistee and Lake Huron in separate lots in vessel cargoes All two inch joists, from six inches in width upwards, and 22, 24 and 27 feet long, are worth $12 50 a thousand; stuff 3 inches thick is worth $13.50; mixed lots will sell for $13 a thousand. There is considerable inquiry for railroad bridge and culvert timber of those who handle it, and good orders are being frequently placed.

It is claimed that the small market offering of No. 2 stock is having a tendency to stiffen prices for this class of lumber also. Dealers that have a heavy trade begin to call for it with more urgency than when the market was well supplied. The enquiry is mostly for dry stock, which shows that it is wanted for immediate shipment, and that the inquirers have run short of supplies. The season has gone by when really green stock can be made available in the fall and early winter trade.

The tendency of lake freights is to increased strength as winter approaches and the season draws to a close.

Quotations on lumber and shingles are as follows :—

| | |
|---|---|
| Dimension, short, green | @$9 00 |
| " long green | 12 00@14 00 |
| No. 2 boards and strips | 10 00@11 50 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@20 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 1 65@ 1 90 |
| " " clear | 2 15 |
| Lath | 1 30@ 1 40 |

AT THE YARDS.

There have been two sections of opinion among the yard men this week in respect to current demand. One is positive that orders have fallen off within the past few days, while the other is as positive to the contrary. The dealers who declare that another period of dullness has struck the district give us as a reason for it that the late advance in the price list has caused uncertainty to the minds of country dealers; that they are unwilling to give the advances that are claimed, and have concluded to rest for the time being, until they can make sure as to what course prices are likely to take in the near future. This class of dealers denounce the action taken at the meeting September 27th, characterizing it as a north side scheme to get a lift on prices to carpenters and contractors. It is alleged that the north side deals have been cutting each others' prices in the scramble for orders, until profits have become exceedingly small. Now they want an apparent advance to thurst under the noses of their customers, so that at least further weakness can be prevented.

The course of trade within the next two weeks will develop a more positive condition for or against higher prices.

The recent restoration of eastern freight rates, which makes them about one-third higher than they were, will tend to check shipments in that direction, though one house that does a heavy eastern business stoutly asserts that it is shipping freely on the higher rate, and can make money in doing so. The western shippers are looking eagerly for a cut rate to Missouri river points, or at least an agreed lower rate.

Receipts of lumber, shingles, etc., from Jan. 1st to Oct. 8th as reported from the Lumberman's Exchange :—

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 45,906,000 | 18,642,000 |
| 1884 | 52,572,000 | 23,128,000 |

FROM JANUARY JAN. 1, 1885, TO OCT. 8, 1885, INCLUSIVE.

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 1,340,285,000 | 561,363,000 |
| 1884 | 1,485,041,000 | 683,135,000 |
| Decrease | 144,756,000 | 121,772,000 |

STOCK ON HAND SEPT. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 572,910,657 | 607,163,6 9 |
| Shingles | 341,9 5,109 | 352,022,268 |
| Lath | 60,717,504 | 59,226,900 |
| Pickets | 2,155,789 | 1,305 699 |
| Cedar posts | 901,563 | 483,069 |

EASTERN FREIGHT RATES.

FROM CHICAGO AND COMMON POINTS ON CAR LOAD LOTS OF HARD AND SOFT LUMBER.

IN EFFECT OCT. 1.

| | |
|---|---|
| To New York | 30c. |
| Boston | 35c. |
| Philadelphia | 28c. |
| Baltimore | 27c. |
| Washington | 27c. |
| Albany | 28c. |
| Troy | 28c. |
| Buffalo and Pittsburgh | 17½c. |
| Shenectady | 28c. |
| Wheeling | 17½c. |
| Suspension Bridge | 17½c. |
| Salamanca | 17½c. |
| Black Rock | 17½c. |
| Dunkirk | 17½c. |
| Erie | 17½c. |
| Toronto | 17½c. |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $45 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 12 00@18 00 |

## ALBANY.

Quotations at the yards are as follows :—

| | |
|---|---|
| Pine, clear, ₱ M | $50 00@53 00 |
| Pine, fourths | 45 00@48 00 |
| Pine, selects | 40 00@45 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 6 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₱ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## BUFFALO.

We quote cargo lots :—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## LIVERPOOL.

The *Timber Trades Journal* of September 26th says :—During the past week there has been a considerable decrease in the arrivals of timber-laden vessels, which so far is satisfactory, as there is a probability that we stand no small chance of being over-stocked with nearly every description of wood goods, and it is only by restricting the supplies as far as possible that the continued downward course of the market can be arrested.

The public sales on Wednesday were eminently unsatisfactory, for in spite of the low prices to which sellers would have submitted, comparatively little was sold. This was not the case only with one particular description, but pitch pine, birnh, aud spruce deals alike failed in some instances even to bring out a bid.

## WEST HARTLEPOOL.

The *Timber Trades Journal* of September 26th says :—The sawn wood department of the trade is extremely quiet; the orders are few and merely of a light description, whilst in nearly every instance urgency of despatch is particularly requested.

Amongst large timber business appears better than in any other department; a lot of oak is being sent into the interior from the shipments which arrived a week or two ago, and there is also a fair demand for Quebec birch, sawn pitch pine and Memel and Swedish fir. The stock of Quebec goods is throughout light, there is rather a scarcity of large sizes in sawn pitch pine; but apart from this fair stocks are held of most kinds of timber, probably Stettin fir being the heaviest, as a considerable quantity of this wood comes along with the oak shipments to float it, and the demand is out of proportion to the supplies which so arrive.

## TYNE.

The *Timber Trades Journal* of September 26th says :—The arrivals of the past seven days are very much smaller in number and amount, the principal items being a cargo Petersburg battens, one cargo pitch pine timber, one of Riga lathwood one of pit-props, one steamer, with a varied cargo from Christiania, and another from Gothenburg. These cargoes are being mainly placed to stock, and so far stocks do not appear to melt away very rapidly. Redwood deals and battens are more heavily held than they have been for a long time past;

prepared floorings are also a fairly large stock. In American goods stock had run down very low at the commencement of the import season, but although the import has been below the average, the stock held is large enough for any prospective requirements.

In pitch pine there is a very heavy stock, and prices lower than they have been for a very long time past. There is no revival to report in any description of trade, and the probability is that it will be spring before any sign of improvement can be noted.

### GLASGOW.

The *Timber Trades Journal* of September 26th says :—A public sale of timber and deals took place at Port Glasgow on 17th inst., when there was a good attendance, and a fair quantity changed hands.

The sale of deals held here on 23rd inst. was well attended. There was a large catalogue, comprising 1st, 2nd and 3rd quality yellow pine deals, and red pine and spruce deals, California redwood, etc., but there was not much business done as the offers made were, in view of the brokers, too low for acceptance. For 1st quality Michigan pine deals, large dimensions, offers were to 3s. 4d. per cubic foot.

There were some sales made of Quebec 1st pine deal ends, at from 2s. 2d. to 2s. 8d. per cubic foot.

Some Quebec and Dalhousie birch timber was submitted after the sale of deals, but there was none sold, offers being under brokers's limits.

There have been no arrivals to note at Greenock or Port Glasgow during the past week. Some parcels of deals have been received here for steam liners.

### QUEBEC.

The *Chronicle* of Oct. 9th says :—Our Timber Trade at this port continues in the same sluggish state which it has been in for weeks. The manufacturers hold out for higher rates, which shippers are not inclined to give, owing to the dull and depressed state of the markets of Great Britain. Two of Messrs. McLaughlin's rafts, choice Pettwawa wood, have been sold, price supposed to be about 30 cents, with a railroad raft 53 feet average, and 60 inch girth, at 20 cents. Mr. Muir's Oak, consisting of about 30,000 feet, has been placed at 40 cents. We understand that Mr. LeSueur has disposed of about 100,000 feet of oak at 48 cents for delivery this fall, and 49 cents next spring.

### RAFTS ARRIVED.

The Quebec *Chronicle* gives the following list of rafts arrived :—

Sept. 25—McArthur Bros., staves, New London cove.

Sept. 28—Collins' Bay Co., staves, Union cove.

D. D. Calvin and Co., oak and pine, sundry cove.

Sept. 30—W. Ritchie, pine and spruce deals, Three Rivers.

McLaughlin Bros., sawn lumber, Cape Rouge.

### TIMBER LIMITS SOLD.

On Oct. 9th the vestibule of the Russell House was filled with a strong sprinkling of our lumbermen, attracted by the sale of 767 square miles of timber limits, in the Kippewa, and the Braeside mills, within three miles of Arnprior, as also the mills on the Ottawa the near city known as E. B. Eddy's steam saw mills, with all the plant and piling grounds.

The first lot put up was the E. B. Eddy steam mills, and the best bid was $20,000; after a tedious pull— the price offered being only $24,000, the property was withdrawn. This mill being in complete running order and having over seventy-four acres of ground attached, with all the necessary out-buildings, is valued at $150,000.

The next lot offered was berth No. 6, Kippewa and Bois Franc, 28 square miles. There is on this lot—over 200 acres cleared— eleven barns and all necessary out-buildings for carrying on the timber limit farming. The farm is now rented for $400 per annum. Sold to W. E. Edwards for $9,000.

Berth 11, Kippewa and Osterbonne, 45 square miles.—A square timber limit. Sold to Perley & Patty for $2,300.

Berth No. 15, Kippewa and North river, 28 square miles. Forty acres improved with a store, stables and sheds thereon. Sold to E. B. Eddy for $11,200.

Berths Nos. 30, 31, 32 and 33 on the Kippewa and Sassagenega, 200 square miles—divided into berths of 50 square miles each—with shanties and stables. Sold to J. R. Booth for $84,500.

The last lot—Lake Temiscamingue—front berths, 58,59 60 61 61 A rear berths, Nos 38 39, 40, 42, 43, 44, and Quinze 42½—in all 465¾ square miles. In this lot there is a farm of over 300 acres, also stores blacksmith shop, stables and sheds, all in good shape for successfully carrying on an extensive manufacture of timber—the timber is represented as very choice. This lot was knocked down to A. Coburn for $60,000.

A lot on the Upper Gatineau, comprised of licenses Nos. 155, 156, 157, 158,159, 160 and 530, containing 265 square miles. This was sold at a rate per square mile. In this lot there is a good farm of about 200 acres, in a good state of cultivation and has a good stone dwelling house, sheds and stables. These are known as the Jean-des-terres limits, and were sold to Gilmore and Co., at a rate of $235 per square miles, or a total of $62,275.

The last lot on the list was the Range river limits, of 159 square miles, sold to J. K. Ward, for $18,500. M. I. B. Tackaberry is to be congratulated for the manner in which he handled this sale. The total footed up the handsome sum of $247,775., not a bad day's work.—*Ottawa Free Press.*

### HINTS FOR THE SAW MILL.

Clean and oil leather belts without taking them off their pulleys. If taken off, they will shrink. Then a piece must be put into them and removed again after the belt has run a few days.

Look well to the bearings of your shafting, engine and machines. Sometimes twenty-five thirty, forty and even fifty per cent. of your power is consumed through lack of good oil.

Set an engine upon three or four movable points, as upon three cannon balls. Connect with steam and exhaust by means of rubber hose. If the engine will run up to speed without moving itself back and forth, then that engine will run a long time with little repair. If it shakes itself around the room, then buy another engine.

Safely moving a tall mill chimney has been accomplished several times. Chimneys which have been caused to lean slightly through settling of the foundation may be straightened up again by sawing out the mortar between courses of brick at the base. A chimney 100 feet high and 12 feet square at the base will be varied over 8 in. at the top by the removal of 1 in at the base.

When you begin to fix up the mill for cold weather, don't forget to put a steam trap in each and every steam pipe which can be opened into the atmosphere for heating purposes

For leading steam joints, mix the red lead or litharge with common commercial glycerine instead of linseed oil.

In tubular boilers the hand holes should be often opened and all collections removed from over the fire. When boilers are fed in front and are blown off through the same pipe, the collection of mud or sediment in the rear end should be often removed.

Nearly all smoke may be consumed without special apparatus by attending with a little common sense to a few simple rules. Suppose we have a battery of boilers and "soft coal" is the fuel. Go to the first boiler, shut the damper nearly up, and fire up one half of the furnace, close the door, open damper, and go to the next boiler and repeat the firing. By this method nearly, if not quite, all the smoke will be consumed.

A coiled spring inserted between engine and machinery is highly beneficial where extreme regularity of power is required. It is well known that a steam engine, in order to govern itself, must run too fast and too slow in order to close or open its valves.—*Timber.*

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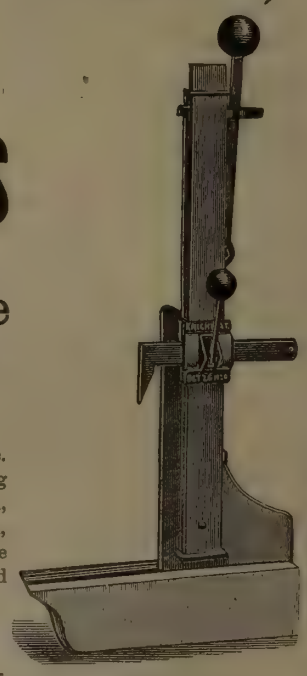
# SAW MILL DOGS

## The Sawyer's Favorite

For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



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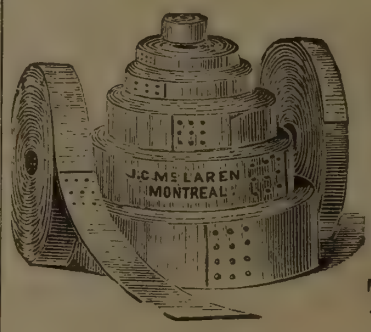


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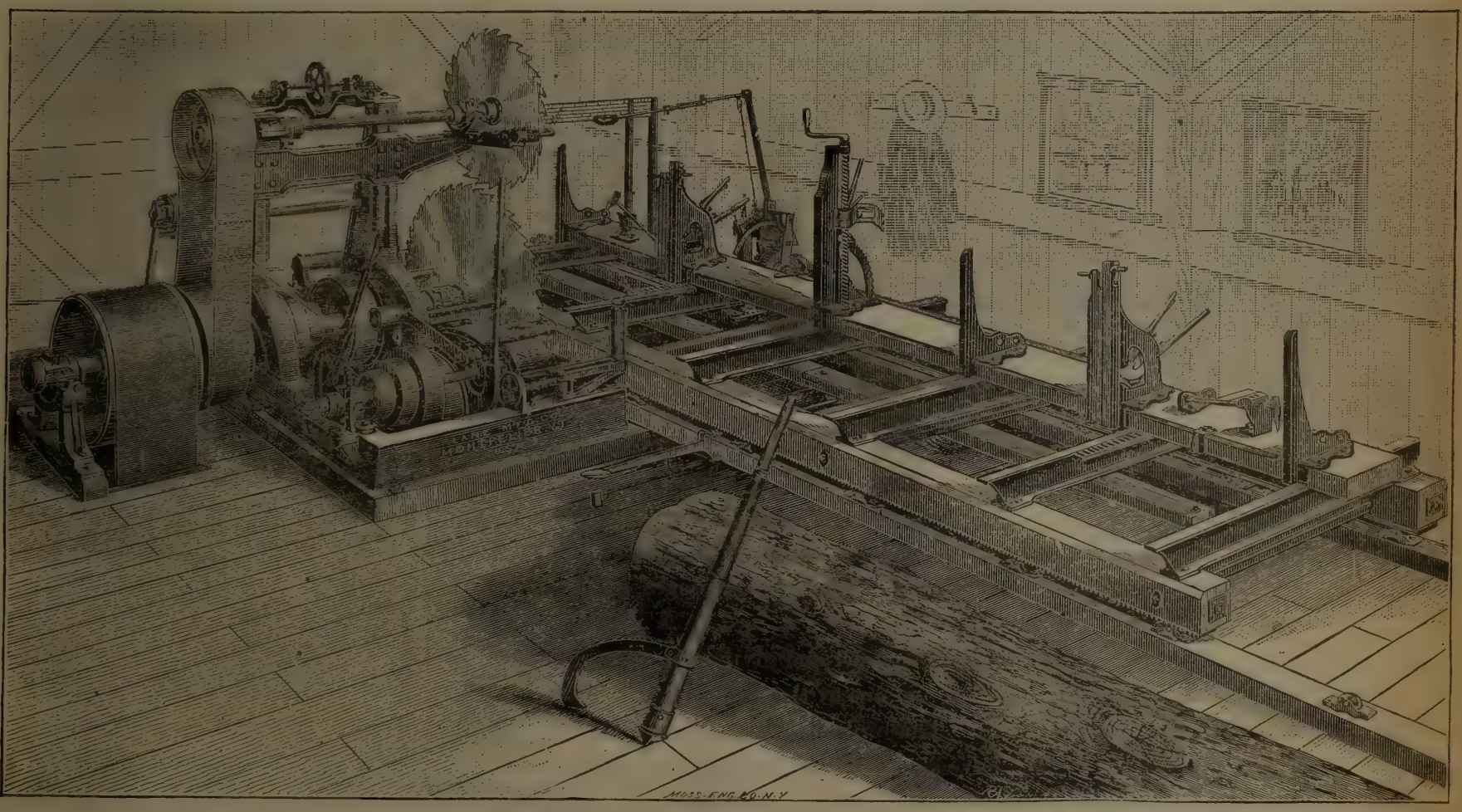

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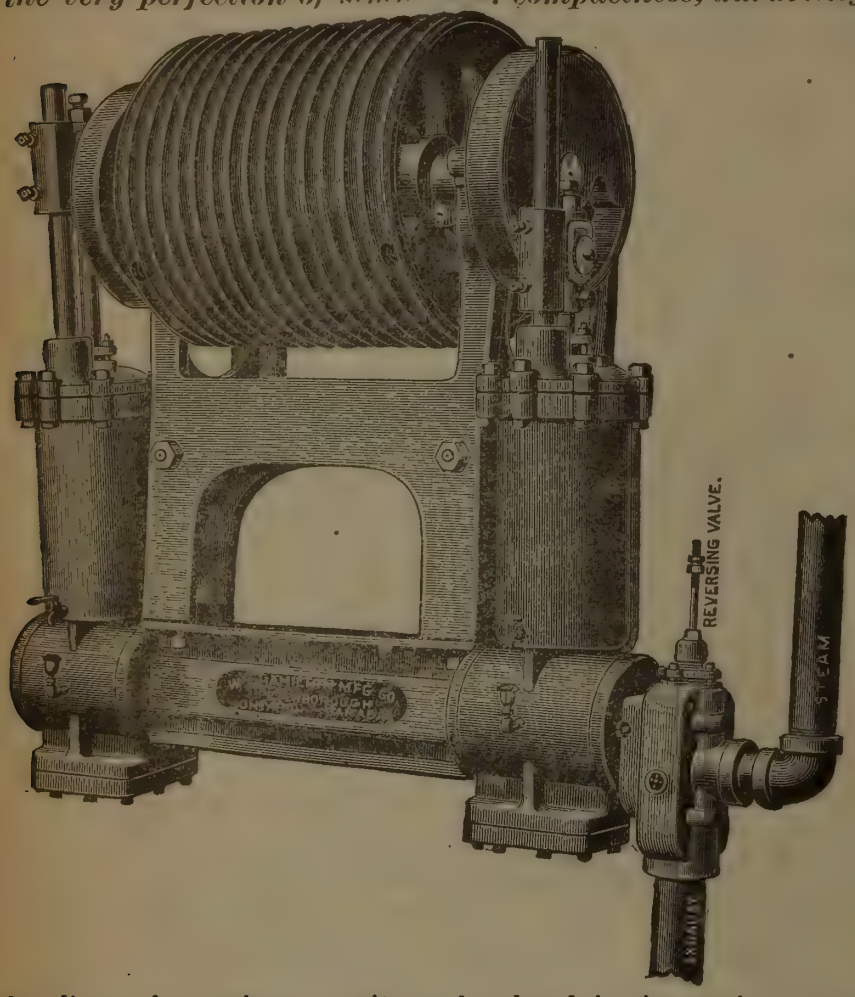
# CUNNINGHAM'S
# PATENT OSCILLATING TWIN ENGINE
## FOR STEAM FEED IN CIRCULAR MILLS WITH RACK OR ROPE.

***This Engine has practically but two moving parts, aside from cranks and shafts. The whole array of eccentrics, valves, valve rods, connecting rods, cross heads, slides, levers, rock shafts, bell cranks, etc., is done away with, and the very perfection of simplicity, compactness, durability and cheapness attained.***




The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoupling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

## We would also call attention to our Improved Band Saw-Mill for cutting logs

☞ ***We guarantee this to be the best Mill of its kind got up, and would ask any one wanting a good Band Saw-Mill to communicate with us. We would also call the attention of Mill Men to our new IRON GANGS, CIRCULAR MILLS and MILL MACHINERY. For further information, prices, &c., address the Manufacturers,***

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***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

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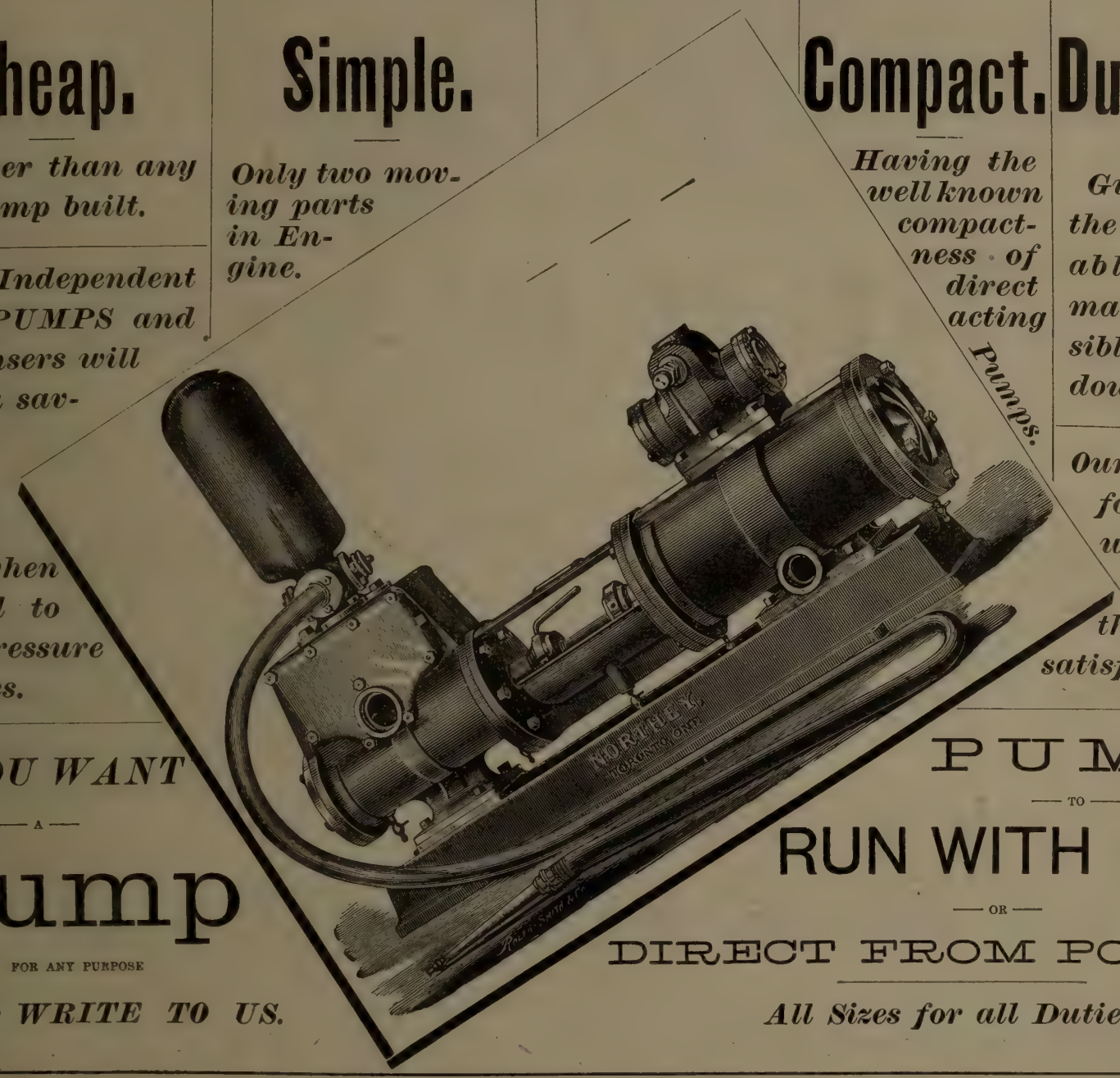
*Only two moving parts in Engine.*

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**TESTIMONIAL.**

IRA GOULD & SONS, City Mills, Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS,—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

**TESTIMONIAL.**

PECK, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

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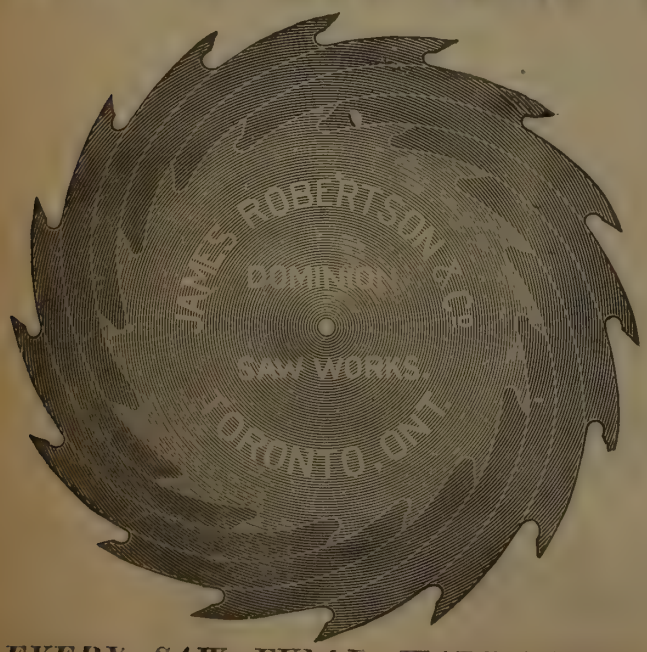


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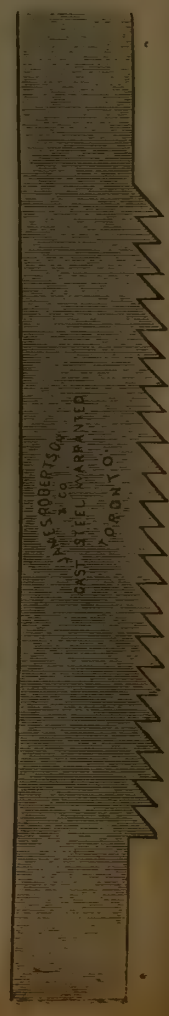


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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY. | *The only Newspaper devoted to the Lumber and Timber Industries published in Canada* | SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., NOVEMBER 2, 1885. NO. 21.


## A LESSON IN FORESTRY.

Those who are trying to save the forests that clothe and protect the soil around the sources our great water sources find their strongest arguments in the experience of European countries, where governments are striving by careful cultivation and at great cost to make good the losses caused by the recklessness, selfishness or ignorance of past generations. They are also able to argue effectively from evidence procured at home. Men who know small streams have dried up and disappeared after the removal of standing timber on comparatively small areas around their headwaters can easily understand how certain changes in the streams that are fed from the Adirondacks have been caused by the reckless cutting of forests on the Adirondack slopes. The movement for the preservation of the Hudson is supported by proofs taken directly from the history and condition of that stream as well as by the great body of evidence relating to this subject which is furnished from all parts of the world.

The engineers of the Water Department of Philadelphia have recently discovered how seriously the Schuylkill has been affected by the destruction of forests around its headwaters. For two years they have been engaged in a careful examination of all possible sources from which that city can obtain a supply of water. The stream flows through a thickly settled valley, and is in fact a great sewer. Its water is not fit to drink. The engineers desire to provide for a supply of about 210,000,000 gallons a day—the quantity that will be needed 30 or 40 years hence. The have discovered that even if the Schuylkill waters were wholesome it would be impossible to secure enough of it to supply the city in the near future, because the minimum flow is decreasing. In fact, the stream at low stage now furnishes very little more water than the city will require 30 years hence.

Sixty years ago the Schuylkill's summer flow was estimated at 500,000,000 a day. Successive measurements made from time to time within the last 60 years showed a gradual diminution, until it was determined in 1874 that the minimum flow was only 250,000,000 gallons. In the course of time, if the city's growth should not be checked and if water should be taken from no other source, Philadelphia will be pumping up the entire river during the summer months.

The remarkable diminution has been caused by cutting off the forests around the headwaters of the stream. As Colonel Ludlow, the chie engineer of the Philadelphia water department, said not long ago at a meeting of the Franklin institute: "The destruction of the forests has to a great extent deprived the river of that power of conservation which is given by woodland, whereby the rainfall is held back and checked, as it were, in its passage to the stream, and the flow is more nearly equalized and prevented from dashing down and passing out." The rainfall rapidly descends to the stream, causing freshets which sweep down the valley, and in time of drought the river shrinks to a very low level because there is no "sponge" around its sources to retain moisture.

These facts concerning the Schuylkill have been discovered as the result of typographical and hydrographical surveys carefully made by the engineers who have been studying a problem whose solution will be a matter of great importance to 1,000,000 of people.—*Lumberman's Gazette.*

## THE USE OF PINE SAWDUST.

SIR,—Some enquiries have been addressed to me as to whether pine sawdust, though considered injurious to soils in general, might not be valuable as a mulch around evergreens, as its decomposition would apparently furnish the ground with the material need for the construction of the growing tree. As the question is of much interest, perhaps you will allow me a few words in reply in your columns.

By all means leave no young trees without mulching during its first years of growth, unless you adopt the equally good or better plan of stirring the soil around, wide as the branches spread, and deep as you can without hurting the small rootlets, two or three times a sumf mer. Then, if you have been so wise as to plant some square acres, so close that the wind cannot injure their early growth, the falling leaves will stay there and form the natural manure of the tree. Do not, I beg of youburn these; nature lights no fires under her trees. But, even if your trees are single or in rows, the leaves will blow away, and in that case, if you car, in addition to stirring or mulching, give each tree a little manure, so spread as neither to come rankly into contact with the roots, nor too strongly to infect the air with its odour, you will soon see how readily tree trunk and branch and spreading wealth of leaves will repay your care.

The tree receives its nourishment from first the roots, a nourishment which passes upward to the leaves, and is there greatly cbanged and added to by contact with the air. It then passes to every part of the tree, giving each its addition of growth. The woody substance—that which fire transmits to the atmosphere, leaving ashes behind—comes principally from the air.

It will thus be seen that the mulching with pine sawdust cannot give the tree its woody substance, as that is supplied by the air. As to the influence of the pine sawdust on the ground, it has long been considered injurious, even when it had, by being used as bedding in stables, been permeated with what by itself would have been a valuable manure.

It is, therefore, inadvisable to use it for mulching, though hardwood sawdust or hardwood. or hardwood chips, or straw, leaves or coarse manure, are all excellent.

At this season of the year, to speak of another branch of the subject, I may state that the seeds of the hard maple, beech, oak, hickory, ash, pine and other evergreens, are ripening, and that those who mean, in a couple of years, to start plantations, might save great trouble and expense by sowing for themselves now, transplanting once when ready, and then planting out at the proper season.

R. W. PHIPPS.

Toronto, Oct. 3.

## PURCHASES OF PINE.

The *Northwestern Lumberman* says:—Mention has before been made of the purchase of a large amount of pine in the Province of Ontario, north of Lake Huron, by an Alpena, Mich, syndicate, the design being to bring the logs to the lake, and then boat them to Alpena for sawing. The syndicate is composed of Frank W. Gilbert, Charles W. Richardson, William Johnson and Thomas Collins. They have purchased what is called the Harvey limit, on Fish river, (probably White Fish river), comprising, according to estimate, 150,000,000 feet of pine. The *Lumberman* is also informed that a second purchase of 50 000,000 feet has been made, which will give the syndicate a total of 200,000,000 feet of stumpage as a pine resource. The logs will be brought to the lake near the mouth of Spanish river, and there shipped to Alpena. The syndicate has purchased the old big ferry boat Michigan, which most travellers between east and west remember as at one time the means of transfer between Windsor and Detroit on the Great Western and Michigan Central route. This boat will be transformed into an immense log barge, and will be towed between Spanish river and Alpena. It is called "Gilchrist's yacht" at Alpena, but being a Canadian bottom, it retains the legal name of Michigan. It will carry 2,500,000 feet of logs. The loading will be done with an endless chain apparatus, carried by steam.

## THE WHITE ANT.

The animal which we are in search of, and which I venture to think equal to all the necessities of the case, is the termite or white ant. It is a small insect with a bloated yellowish-white body and a somewhat large throax, oblong shaped, and coloured a disagreeable oily brown. The flabby, tallow-like body makes this insect sufficiently repulsive, but it is for quite another reason that the white ant is the most abused all living vermin in warm countries. The termite lives almost exclusively upon wood; and the moment a tree is cut or a log sawed for any economical purpose this insect is upon its track. One may never see the insect, possibly, in the flesh, for it lives under ground; but its ravages confront one at every turn. You build you house, perhaps, and for a for a few months fancy you have pitched upon the one solitary site in the country where there are no white ants. But one day suddenly the door post totters, and lintel and rafters come down together with a crash. You look at a section of the wrecked timbers and discover that the whole inside is eaten clean away. The apparently solid logs of which the rest of the house is built are now mere cylinders of bark and through the thickess of them you could push your little finger. Furniture, tables, chairs, chests of drawers, eveything made of wood is inevitably attacked, and in a single night a strong trunk is often riddled through and through and is turned into matchwood. There is no limit in fact to the depredations of these insects, and they will eat books, or leather, or cloth, or anything, and in many parts of Africa, I believe if a man lay down to sleep with a wooden leg, it would be a heap of sawdust in the morning. So much feared is the insect now, that no one in certain parts of India and Africa ever attempts to travel with such a thing as a wooden trunk. On the Tanganyika plateau I have camped on ground which was as hard as adamant, and as innocent of white ants apparently as the pavement of St. Paul's, and wakened next morning to find a stout wooden box almost knawed to pieces. Leather portmanteaus share the same fate, and the only substances which seem to defy the marauders are iron and tin.

## PIPING SAFETY VALVES.

The diversity of opinion which has existed among engineers in regard to piping safety valves is gradually resolving itself into a decided opinion that they should not be piped at all, but should be left free to blow directly into the boiler room. Used in this way the valve cannot blow without attracting attention; a leak will be immediately detected, and no chance will be allowed for water to stand upon the valve as when, for instance, it is piped straight up through the roof without proper drips. The effect of the is not only to impose an additional load upon the valve and to corrode the working parts, but it affords a very potent cause for explosions in winter by becoming frozen and binding the valve to its seat. In these days of pop safety valves, which preclude the necessity of a constant drizzle from the valve and render only an occasional short discharge necessary, much of the objection to open discharge into the room has disappeared and the tortuous and dangerous escape pipes, are becoming a thing of the past.—*Journal of Commerce.*

### GOVERNMENT SALE OF TIMBER.

The sale of Ontario Government timber berths on the North shore of lake Huron was held in the Legislative chamber, Toronto, on Oct. 22nd. The audience numbered between four and five hundred, and comprised several lumbermen from the United States as well as most of the prominent Canadian lumbermen. The sale commenced at one o'clock, and was continued without intermission until half-past three, by which time all the lots were disposed of, the total sum realixed being close on half a million dollars. It is safe to say that the prices obtained were by far the best ever got at such a sale. The following were the sales effected :—

Berth No. 1, township of Springer.—A concession, lots 1, 2, 3, except four acres in northwest part 6, 7, 8, 13. B concession, lots 1, 2, 3, 4, 5, 6, 7, 9, 10, 13. C concession, lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. D concession, lot 12, 13, 14. Goulais Island in McLeod's Bay. Township of Caldwell.—A concession, lots 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. B concession, lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. Area 27⅞ square miles. Bidding opened at $25, and sold at $250 to Hugh Macdonald, Toronto.

Berth No. 2.—The space projecting eastward in Lake Nipissing from timber berth 11, and that part of timber berth 12, situate south of West Bay. Area, 68 square miles, more or less. Opened at $25; sold at $1,250 to John Page, Toronto.

Berth No. 3.—Broken fronts, south of timber berths No. 11, 19, 27, and the large island in French river south of the said broken fronts. Area, 53 square miles, more or less. Opened at $50; sold at $250 to Arthur Hill, Saginaw, Michigan.

Berth No. 4.—Lying between timber berths Nos. 35 and 43 and the north channel of French river, and bounded on the west by Wahnapitae river. Area, 50 square miles, more or less. Opened at $50; sold at $65 to F. B. Maxwell, Toronto.

Berth No. 5.—Lying between timber berths No. 51 and 59 and the Wahnapitae river and the north channel of French river. Area, 59 square miles, more or less. Opened at $50; sold at $350 to W. H. Bennett, Midland.

Berth No. 8.—The southerly part of the Township of Humboldt, exclusive of the Indian reserve and a location at the mouth of the Mahzenazing river, 200 acres. Area, 13½ square miles, more or less. Opened at $200; sold at $1,200 to W. H. Bennett, Midland.

Bert No. 9.—Philip Edward Island. Area, 11 square miles, more or less. Opened at $200; sold at $490 to R. Jaffray, Toronto.

Berth No. 10.—Lying between timber berths, No. 82 and 90, and the Georgian bay and Collins inlet. Area, 83 square miles, more or less. Opened at $50; sold at $150 to John Scully, Toronto.

Berth No. 11.—Lying between timber berth No. 98 and the Georgian Bay, exclusive of White Fish River Indian Reserve, exclusive of the surveyed portion of the township of Rutherford and half a mile immediately north of sections 23, 24, in said township. Area, 28 square miles, more or less. Opened at $500, sold at $710 to John Waldie, Burlington.

Berth No. 12.—Lying between the township of Merritt and Georgian Bay, exclusive of White Fish River Indian Reserve, and the patented mining locations west thereof. Area 23 square miles, more or less. Opened at $200, sold at $710 to Mossom Boyd & Co., Bobcaygeon.

Berth No. 13.—Township of Lewis. Area, 26 square miles. Opened at $50; sold at $240 to John Scully, Toronto.

Township of Long.—Berth No. 14.—Area 24¾ square miles. Opened at $100; sold at $320 to John Scully, Toronto.

Berth No. 15.—Part of Township of Cobden. Area, 15 square miles. Opened at $80; sold at $100 to J. A. Dollar, Midland.

Berth No. 16.—Adjoining berth No. 2, on the French River. Opened at $60; sold at $250 to Charles Creney, Nipissing.

Berth No. 20.—Situate in the township of Balfour, on the C. P. R. Opened at $50; sold at $400 to Thomas Charlton, Ottawa.

Berth No. 21.—Situate in the township of Fairbank, and intersected by Vermiliion lake. Opened at $80; sold at $210 to Wm. NcNabb, Douglas.

Berth No. 22.—Situate in the township of Downing, and immediately north of berth 21. Opened at $70; sold at $250 to Charles Creney, Nipissing.

Berth No. 23.—Situate on the Laepenage lake. Opened at $50; sold at $200 to A. Suth erland, Belleville.

Berth No. 24.—Near the Spanish river. Opened at $50; sold at $580 to Conlin Bros., Thorold.

Berth No. 25.—Being timber limit No. 150. Opened at $50; sold at $260 to S. Lount, Barrie.

Berths Nos. 16 to 25, inclusive, are estimated at an area of 36 square miles, more or less, each.

Berth No. 27—Situate in the township of McGiverin. Opened at $25; sold at $225 to S. Lount, Barrie.

Berth No. 29.—Situate in the township of Day, on the Mississauga river. Area, 7½ square miles. Opened at $50; sold at $320 to S. Lount, Barrie.

Berths Nos. 6, 7, 17, 18, 19, 26, and 28 were withdrawn, the reserved bid not being reached.

The above prices are per square mile.

### REMARKABLE TREES.

There is not at present in this country such an elm as was, in the year 1674, cut down in the Park of Sir Walter Bagot, in Staffordshire The particulars recorded in the family are that two men were five days in felling it; it measured 40 yards to the top in length; the butt was 47 feet in circumference; 14 loads were broken in the fall; 48 loads were contained in the top; there were made out of it eighty pair of naves for wheels, and 8,860 feet of boards and planks. It cost, at a time when labor rated less than at present, £10 7s. for sawing and the whole substance was computed to weigh ninety-seven tons. In May, 1760, an oak was felled near Ludlow, in Shropshire, the contents of which were as follows: Thirty-six tons of timber, forty-two cords of wood, 2,000 park pales, and four and a half cords of brackets. A bough broke off before the tree was felled, which weighed seven tons and a half. Two men were employed a month in sawing it. The tree was valued at £250. In March, 1800, an ash tree was cut down at Broughton Hall, near Shipton, which contained upward of 500 feet of sound wood. The bole was 13 feet long, squared 36 feet 9 inches and contained 182 feet of wood. —*Timber.*

### THE VALUE OF EXPERIENCE.

Among our acquaintance we number several who place a great deal of stress upon the twenty to forty years of experience which they have had in certain lines, and we have found it a pretty safe rule to write a big N. G. beside the name of a man who urged such an experience as his greatest hold. Do not let us be understood as underrating at all the value of a long experience and practical contact with a subject, but it is too often the case that an engineer who is the very crystalization of old fogyism will unhesitatingly assert his very crude opinion upon any question connected with steam engineering, and back it up in dead opposition to recorded fact, to scientific principles, and to common sense, with the awful responsibility of his "twenty years of experience." There are plenty of men who for a dozen or more years have worked as firemen and engineers about one plant, who could not tell you, if their lives depended upon it, how many square feet of heating surface there is in their boilers, and if they know how many tubes there are in them it is only because they count them over anxiously when cleaning to see how quickly they can get through. They know nothing of steam engineering outside of their own little sphere, and do not even know whether they are doing there the best that under the circumstances could be done. Many a man of a more energetic temperament and more liberal ideas would learn more in two years of such experience than they have in their dozen or twenty, and would probably find opportunities for economy which his older colleagues would have always overlooked. Another places a great deal of stress upon his lengthy experience with the ndicator, during which he has, in fact, attained only a superficial knowledge of the instrument which is fully equalled by that of numerous engineers to whose kit the indicator is a very rec ent acquisition.

The value of a man's experience depends, as does his life in general, upon the manner in which he lives it. Many men attain their three score years with but little more than grey hairs and enfeebled step to note the epoch. Others lead so active and so full a life that every passing year adds to their stock of knowledge and their value to their fellow men, and it is such men as these whose absolute qualification for any service may be measured by the years of experience in that line.—*Boston Journal of Commerce.*

### RHINE TIMBER RAFTS.

The timber rafts of the Rhine are a noticeable characteristic of the river. They consist of timber felled in the mountain forests, and brought down to the Rhine by the Nekar, Main, Moselle and other rivers. The single logs are first hurled down from the heights into the mountain torrents, then a few tied together, and, as they float down the streamlet, grow like a snowball till in the Rhine itself they are made into huge floating masses, which are carefully navigated to Dordrecht and sold.

A raft often has eight or ten small houses on it, and from four to five hundred workmen, rowers and pilots. The vast pile is steered by means of immense oars, and is so constructed as to twist like a huge snake in the narrow channels. The boatmen often have their wives and families on board, and various trades are carried on, such as tailoring, dress-making, spinning and knitting. An immense supply of provisions, including pigs, poultry and other animals is carried and replenished from time to time as needful. The sale of a single raft at the end of a voyage often realizes about £30,000. —*Furniture Gazette.*

### WOOD-WORKING PATENTS.

The following list of patents relating to the wood working interests, granted by the U. S. Patent Office, Oct. 13th, 1885, is specially reported by Franklin H. Hough, solicitor of American and foreign patents, 925 F. Street, N. W., Washington, D. C.:

328,019.—Saw — T. Fowler, Bridgeport, Conn.

328 164.—Saw—H. W. Wheeler, San Francisco, Cal.

328,423.—Saw filing machine—J. S. Mosley & T. J. Mancill, Atlanta, Miss.

328,094—Saw mill, band—T. B. Walker, Minneapolis, Minn.

328,035.—Saw setting machine—H. F. Jenks & W. H. Butman, Pawtucket, R. I.

328 377.—Sawing machine, scroll—W. F. Barnes, Rockford, Ill.

PATENTS ISSUED OCT. 20.

328,649.—Bit brace—J. Chantrell, Bridgeport, Conn.

328,828.—Lumber transporter—W. Way, Ontario, Can.

328,794.—Planing and re sawing machine—G. Lhote, New Orleans, La.

328,654.—Saw gummer, gin—W. F. Collie, Barren Fork, Ark.

328,528.—Saw-swaging machine—G. F. Simonds & L. Blake, Fitchburg, Mass.

328,486.—Saw, trip—E. P. Hayes, Deer Lake, Mich.

328,771.—Sawing machine, circular—M. Garland & A. D. Catlin, Bay City, Mich.

### BLACK RIVER LIMITS.

Auctioneer W. H. Lewis, on Oct. 20th, conducted one of the most successful sales of timber limits ever held in Ottawa. It took place in the Russell House, and nearly all the leading lumbermen of the Ottawa Valley, to the number of about 150, were present, and the bidding was very lively, so much so, in fact, that at one juncture the excitement ran high among those present. The Black river limits, which comprise 74 miles of first-class timber, were put under the hammer. They were the property of Messrs. McCashen and Fraser. It will be remembered that Mr. McCoshen died suddenly in Quebec a few weeks ago, and this sale was for the purpose of settling up the affairs of the firm. Bidding begun at $50,000, and in the space of about fifteen minutes it had increased by one thousand dollar bids to $100.000 Bids now dropped to $400, but were still lively at this figure. At $123,000 auctioneer Lewis knocked the limits down, but two parties, Mr. H. Robinson, for Hamilton Bros., and the Conroy Bros., claimed to have made that bid. The sale was of continued, and again by $1,000 and $500 bids the price went up to $159,600, when the limits were knocked down to Mr. Hiram Robinson. This figure is at the rate of over two thousand dollars per mile. There is in addition to the limits, the plant, etc., the schedule price of which was about $14,000.

Auctioneer Lewis also offered for sale a limit of 34 miles on the Opeongo branch, belonging to the same firm. This limit was also bought by Mr. Hiram Robinson, for $65,000. The schedule price of the plant etc., on the limit was about $8,000. Both sales aggregated over $200,000.—*Ottawa Free Press.*

### LEGAL.

PETITION OF RIGHT.—A petition of right was presented on Tuesday Oct. 27 at Osgoode hall before Mr. Justice Proudfoot. The suppliants were Mr. McArthur, of Washington Territory, and Mr. Barnett, of the county of Renfrew, petitioning her Majesty for a declaration that they are entitled to a license for fifty square miles of timber limits on the Pettawawee river, in the region of the Upper Ottawa. The Attorney-General's defence was that the plaintiffs were disentitled to a license by their own laches. His lordship gave judgement in favour of the suppliaants with costs.

SOLICITOR'S LIEN.—In Can. Pac. R. W. Co. v. Grant, the plaintiff sued for freight for the carriage of timber, and the defendants counter-claimed against the plaintiffs for damage for neglect and delay in the carriage of the timber. At the trial judgement was given for the plaintiff for $2,122 and for the defendants for $1,420. Judge Armour endorsed in the record these words :—"The verdict will be for the plaintiffs for $2,122. and for the defendants upon their counter-claim for $1,420 - and each party will be intitled to costs against the other, as if the statement of claim and counter claim were separate actions," etc. There was an application before the Master in Chambers to set off the two judgements, and there was an objection by the defendants' solicitors on the ground that they had a lien for their costs. Mr. Dalton gave judgement on the 27th inst., and held that there was nothing in the judgement of Mr. Justice Armour to take the case out of the operation of the general law, for the words of the judgement in respect to costs applied merely to the quantum of costs. He then stated the general law to be that where, as here, the rights depend upon one judgement given in the same action, the costs may be set off without regard to the solicitor's lien, and he so directed. This decision will probably be appealed.

### LEITH.

The *Timber Trades Journal* of Oct. 17th says :—The arrivals of the past seven days have not been on a large scale, and contain few items of very special interest. They are largely made up of pit-props and mining timber from south of Norway, a few cargoes from the Baltic, one from Quebec, for steamers with assorted cargoes from Gothenburg and Christiania, and the rather unusual arrival of an entire cargo of Riga lathwood; of the latter very little being now imported, as a rule the greater part of the laths used here being either imported from Gothenburg or the wood purchased at neighboring ports. There is no change to report either in the aspect of affairs generally, as regards the amount of business being done, or of the values of any commodity. Certainly there is no improvement to chronicle, and as the season progresses, what housebuilding there was going forward is being gradually lessened, very little being now in progress as compared with this time last year.

Log timber is still very largely held, and not many orders appear to be in hand for this wood.

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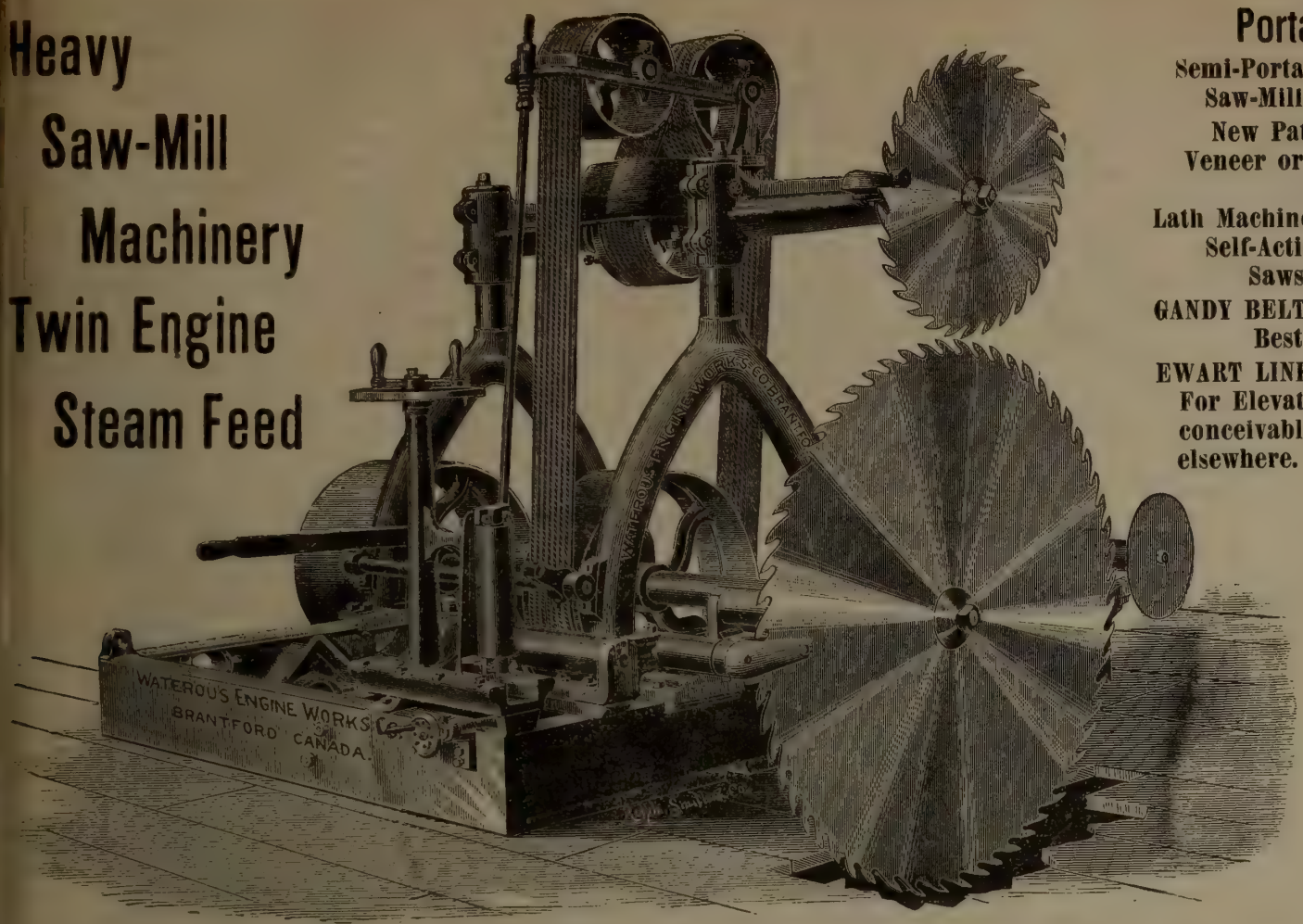


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### GLASGOW.

The *Timber Trades Journal* of Oct. 17th says:—The arrivals at Clyde ports during the past week have been light, comprising at Glasgow a cargo of spruce deals from Economy, N. S., and a parcel of deals and boards from Montreal, also small parcels of staves, etc., per steam liners from New York; and at Greenock a cargo of Moulmein teak.

The imports at Grangemouth, on the east coast, have been for the week five cargoes Baltic goods, the aggregate carrying tonnage amounting to 1,465 tons. Since the beginning of this year the total of wood goods from north of Europe ports to Grangemouth is represented by a carrying tonnage aggregating 87,000 tons, and from Quebec and Pensacola to Grangemouth 8,000 tons. The figures for corresponding period 1884 were:—North of Europe ports 64,000 tons; Quebec and Pensacola, 7,000 tons.

The arrivals this year at Greenock and Port Glasgow from Quebec and pitch pine ports, represented by the tonnage, employed in conveyance, have been 57 cargoes, total 57,203 tons, which is almost on a level with last year's import at corresponding date.

Of deals there have been imported to Clyde during this year 381,000 pieces from Quebec and Montreal, and 288,000 pieces from New Brunswick and Nova Scotia, total 669,000 pieces. The bulk have come per steamer from Quebec and Montreal, and been landed at Glasgow. Last year's total at corresponding date was 663,000 pieces deals. Deliveries from Yorkhill Yards, Glasgow, during August and September last amounted to 147,525 pieces deals, and for same months 1884, 146,172 pieces.

### LEITH.

The *Timber Trades Journal* of Oct. 17th says:—The importations of wood goods into this port continue on a moderate scale, one entire steamer cargo of Riga whitewood deals, and a large cargo of redwood battens by sailer from Kotka, being the most noteworthy.

There is no improvement to record in the state of trade this week. It is not known definitely yet who is the successful contractor for the erection of the Edinburgh International Exhibition, although it is announced that the designs of Messrs. Burnet and Son, of Glasgow, have been selected. The plans coming next in point of merit were those of Mr. William Hamilton Beattie, architect, Edinburgh, to whom a premium of £75 has been awarded.

Messrs. William Thomson & Co. held a public sale on Tuesday at the Sands, when they offered the entire cargo of American timber just landed ex Alagna, from Quebec, consisting of waney board yellow pine, birch, elm, oak, and yellow pine deals. The attendance of buyers was not so large as is generally seen at Messrs. Wm. Thompson & Co.'s sales when a fresh cargo of Quebec goods is to be offered, but the trade was well represented, and although the competition was limited, almost the whole of the yellow pine was cleared out at 2s. 7d. to 2s. 11d.

### ELEPHANTS AT WORK.

In turning square timber a tusker puts his tusks under the ends, lifts upward and forward at an angle of 45 degrees, and easily throws it over; but the female, or muckna, having no tusks, has to kneel, place the base of the trunk, not the forehead, against the side of the log, and by a downward and forward pressure against the upper edge of the log push it over. In either case the work is done in less than a minute if there be no special difficulty to overcome. In the Sungam timber depot all the work of piling and arranging the logs in regular order at equal distances of their mahouts. A word of command, a silent touch of the hand or knee was enough. There was no loud bawling or angry swearing at the laborers, such as would have been absolutely necessary had they been Barbadoes or Demerara negroes, nor was there any insulting back talk or insubordination, such as those abominable

KING CHRISTIAN'S arbitrary prorogation of the Danish Rigsdag has temporarily averted the threatened revolution; but many intelligent statesmen believe that a republic will be established in Denmark before the expiry of twelve months.

### A NARROW ESCAPE

CHICAGO, Oct. 26.—Michael P. Scanlan was swept off the deck of the schooner Belle Brown between Milwaukee and Chicago one dark night two weeks ago. His shipmates reported the loss when the schooner arrived here, and nobody doubted that he was was dead. Scanlan opened his eyes in a Milwaukee hospital a day or two ago, after two weeks' unconsciousness and delirium, and told what had happened to him after he went over the rail of the Belle Brown. The schooner hove to but could not see him, although he saw it. After floating for a time a spar came within his reach. He clung to that all night and all the following day with nothing to eat but dead fish. Boats passed near by but he could not make himself heard. When night came he gave up hope, but that his dead body might be sent to his family at Kingston, Ont., he lashed himself to the spar with his belt. Then he became insensible and knew nothing until he woke up in the hospital.


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## THE ENGLISH TIMBER SUPPLY.

The following bit of cheery information reached us from Liverpool in the early part of the week; in fact, it appeared in the *Liverpool Journal of Commerce* on Monday last, and from a mercantile point of view it is worth repeating: "It may be taken as a sign of returning prosperity that on Saturday and yesterday no fewer than 59 vessels of various sizes, aggregating upwards 57,000 tons, left the Mersey. As a further indication of the improved state of things, it may be mentioned that the crews of no fewer than eleven vessels will sign articles to-day." This is very pleasant reading as regards shipping, but we are sorry to say the timber business of Liverpool seems to have derived no benefit from it, as the public sales continue to be unremunerative, and from the very circumstance that has imparted life and activity to the shipping business.

We lately noticed that there had been an excessive importation into Liverpool—in fact, the the number of timber-laden ships arriving there one week exceeded the London list for the same period, and all these arrivals had to get out of port again, if they did not mean to lay up for the winter there. It is, however, a favorable symptom that it was worth their while to clear out; and it may be assumed that many of them had cargoes, or were under the charter to load elsewhere.

The wood market is not, however, by any means brightening in Liverpool. It seems unable to rally against the heavy importation of Southern pine, which at the public auctions can be bought either hewn or sawn, of fine lengths and sizes, at an average of about 14d. per foot. One solitary lot at Messrs. Dobell's sale a fortnight back, 20 to 23 in., fetched 1s. 6d. per foot, but 60 to 66 ft. long by 17 in., no piece cubing less than 120 ft. went for 1s. 0½d., and the pine deals fetched only 10d. per cub. foot, which is no more than £6 17s. 6d. per Petersburg standard, a price hitherto unheard of for that kind of goods. As to spruce deals, of which we have been taught to expect a short supply this fall, bidders would not listen to the voice of the charmer however wisely he may have urged them to sieze the opportunity. Best sizes—only one lot of 3x11—went as high as £0 17s. 6d.—and 16 feet 3x9 sold at £5 15s.; nothing else fetched more than £5 10s., except a couple of lots, 3x12 to 19, good lengths, which went at £6 17s. 6d. and £6, that on a favorable market would have been thought cheap at £8. These were from Bridgewater, N. S., but another cargo, afterwards offered by Messrs. Mackay, from St. John, N. B., fared no better, as nothing reached beyond £6 17s. 6d. The birch timber put up was also greatly neglected, and logs that even less than six months ago would have brought 2s. 4d. per foot, 17 to 23 in. deep, could not be forced higher 1s. 9½d., and nothing of less dimensions reached within 3d. per foot of that price. A large portion of these cargoes were reserved, the selling brokers not feeling justified in making such sacrifices, especially as the influx of timber-laden ships had abated.

Our correspondent furnishes a clue to this evident disinclination to buy on the part of the dealers. Though regarding with satisfaction the subsiding of importation, he added, "there is a probability that we stand no small chance of being overstocked with nearly every description of wood goods, and it is only by restricting the supplies as far as possible that the continued downward course of the market can be arrested." The conviction on the mind of the trade is that they are powerless to control the importation, and must take their chance. The mice in council were unanimous in their resolution that they ought to "bell the cat" if they would render their lives more enjoyable. But how was it to be done? They could not get over that. In like manner they may resolve in Liverpool not to order another cargo till the present heavy importation is cleared away. The cargoes would come forward all the same for that, if the shippers had more stock on hand than they choose to hold over the winter. In Bristol too, which is not complaining of an overburdened market, spruce deals are in no better demand than at Liverpool, for even there at Messrs. King's sale, on 23rd past, St. John spruce in no case went so high as £7 per standard, and a cargo from Pugwash went at and under £6, which was the highest price for 3x9 and 10 regulars.

It is evident from these statistics and the report of the London market that if, as we still hope, general trade is improving, the timber section of it does not manifest much confidence in the movement. Special goods may here and there be scarce, and therefore obtain special prices, but for those in common use and to be had everywhere they are expected to go as bargains at the public sales, and too often they do so. It may be remarked, while on this topic, that if importation is somewhat diminishing on the west coast, it can hardly be pronounced so on the east coast. Hull, at all events, shows no diminution in the ratio of arrivals; and though we have recently had strong winds from the south and westward, which kept Baltic sailing ships back, the amount of timber goods delivered into Hull during the week last recorded was about 18,000 loads; and the next Board of Trade returns may tell another tale of increased importation all around. But the summer is now over, and no more sailing ships will leave this country to cross the Atlantic outward for timber lading this year. Nevertheless those already in the timber ports, and on their way out for their fall cargoes, may form a pretty considerable fleet; and a few adventurous steamers, whose owners or commanders are impatient of a long winter before them, may still strike out for another voyage to Nova Scotia or the Bay of Fundy, with the hope of getting back again quite as soon as the sailing ships which may be now more than halfway out on their second voyage. But, as grain freights are better now than they have been since last winter, there are not likely to be so many seekers for timber cargoes as usual at this time of year. The quotation for wheat from New York to London on Thursday was 4¾d. per bushel, equal to 15s. 10d. per ton, or more than double what it was two months ago. But, as we have before observed, timber freights do not appear to be affected by those of grain, albeit across the same ocean; and the letter of our Stockholm correspondent last week shows that in the Baltic no advance can be established, as thus:—

"With the advent of autumn there has usually been an increase in the freight rate for wood goods from the north of Sweden, commensurate with the enhanced risk of navigating the Baltic and the Gulf of Bothinia at that season. Neither last year nor this, so far, has this occurred, but on the contrary tonnage can at this moment probably be had cheaper than at any previous period this year."

This was written within the last fortnight, and it may be taken as significant of the great levelling power of steam in ocean navigation. Though warned by the shortening days and the stormy weather lately experienced that winter is not far off, it still continues to ply from land to land in the timber trade with a vigour and perseverance that is only its own opponent. Wind-power with which the world did very well for some 6,000 years, is now nowhere in the race, and is also under the disadvantage of having its scale of reimbursement regulated by its more steadily powerful competitor.

Our aforesaid correspondent also admonishes the trade of the probabilities likely to mark the close of the season in Sweden. He coincides with the opinion which he considers to be prevalent on this side and out there, that very few cargoes on consignment will be sent to London this fall. But he qualifies his assent to this view of the situation, and limits it to bright goods, observing that "no doubt realization by auction will be resorted to for getting quit of goods that have been discoloured by the late bad weather." A very comprehensive phrase, by the by, a sort of *multum in parvo*, which is very suggestive. Can wood goods in Sweden suffer more by exposure to the weather than they do in the open at our own Surrey Commercial docks? Yet a spell of rainy days, after they give place to a fair proportion of dry ones, are no longer remembered in the auction rooms as prejudicial to the recent piles of deals which are submitted to their bidding. When we talk of goods discoloured by weather the idea that comes uppermost is that they must have been lying a year or two in some out-of-the way corner, ill-drained and badly ventilated. They sometimes come to market, it is true, discoloured ex ship, but it is from lying long in the hold on account of detention on the voyage by accident or wreck, and "sold for the benefit of the underwriters," often very little the worse for the ordeal they have gone through, and only nominally "damaged." But as the writer says that a very great quantity of mixed and 3rd redwood has been damaged in the manner indicated between Gefle and Sundswal, we may expect that our market will yet be supplied pretty liberally from that region before the season closes. Nor must it be forgotten that the low rate of freight is a standing temptation.

But through all there is observable, if not an absolute improvement in trade, a far better spirit in its conduct, and an abatement of that nervousness which has been visible about it for many months past. The decline in prices was not all to the disadvantage of trade, for nothing has been so much in its favor as the continued cheapness of money. Nothing else saved us from a serious crisis, and now the fear of any rapid increase in the bank rate is no longer visible. It is very unusual to pass though autumn without it, but it is not apprehended now to any uncomfortable degree, and the speech of the Chancellor of the Exchequer at Salisbury will tranquilize many anxious minds about the disturbance of the European equilibrium in the East.

It would not surprise us to see an important change for the better in trade throughout the realm to take its rise from the present date; but there are many important political questions pressing for solution besides those of our foreign relations.—*Timber Trades Journal.*

## TWO OPINIONS.

The Chicago *Inter-Ocean*, taking its cue from the recent convention of the Lumbermen's Association of the Northwest, discussed in an article published shortly afterward the cause of the over-production of lumber of which the members of the association complained. The *Intes-Ocean* concludes that in no business has there been more improvement in what may be called the manufacturing processes than in the lumber business and says:—

"All the ingenuity of the inventive and practical minds in the lumber trade has been directed to the improvement of mill machinery and to the perfection of schemes looking to the transportation of logs and lumber. Wide districts of timber land have been purchased with a view to the transportation of logs from the point of growth to places where mills could be advantageously located. Timber lands have been bought on streams and rivers or on railways, and mills have been located at points within easy reach of the markets.

"In the gathering of logs all the energies have been directed to the speedy cutting and to the means of easy transportation to the mill. Lumbermen have combined to bring about a system in logging that is almost perfect. They have made the seasons to come to their aid, and have thought more of getting logs to the mill than of the future of the lumber business. They have devoted all their energies to stripping the lands of timber, and have given very little attention to the future of the lands after the timber has been taken from them. They have succeeded in reducing logging to a science; but this is only one step, the first in a business which in the Northwest is scarcely second to any other.

"In the old times the saw mills, pushed to their best, could not supply the demand. The demand of course increased with the settlement and improvement of the country, but it has not increased as rapidly as the supply. The saw mills of the lumber regions of to-day are as much in advance of the saw mills of 30 years ago as are the perfecting presses of the day in advance of the first rotary presses. People who get their idea of the saw mill from the establishments outside of the lumber regions have little idea of the capacity of the mills in which lumber is manufactured. One of the great mills in the Michigan lumber district will handle from 1,000 to 1,500 logs every day. The mills will probably average 5,000 logs a week or 20,000 logs a month. All the ingenuity and energy of the lumberman has been directed to the quick handling of these logs or the rapid turning of the rough material into lumber. They have so far succeeded that each mill will turn out from 80,000 to 110,000 feet of lumber every day. Every contrivance that can aid the men in handling and turning out lumber has been pushed to wonderful perfection.

"It is little wonder that with so many of these great mills tearing away every day there should be a tremendous supply of lumber. It is little wonder that when lumbermen come together they should consider means by which the supply can be regulated to suit the demand. The manufacturing capacity is, through enterprise and ingenuity and energy, going beyond the demand. The capacity will remain the same for a good many years. It will not be increased as rapidly as in the past, because there is less enthusiasm now in the matter of investment in lumbering ventures. With a fair minded policy on the part of lumbermen the question of supply and demand will regulate itself, but the whole matter of turning pine forests into lumber will always remain one of the most interesting features in the business development of the Northwest."

What the *Inter-Ocean* says of improved methods and processes is true, but these have increased the supply of timber as well as the mills. The logging railroad has wrought a great change in the work in the woods, bringing tracts of timber that were thought unavailable, because too far from water, within reach of the improved gangs and circulars. Snow was once regarded as obsolutely indispensible for lumbering operations, but now no dependence is placed upon it. In freezing weather the lumberman makes his own roads by the use of a sprinkling cart and keeps them always in the best condition, and if his haul be too long for profitable use of teams he constructs a railroad from his timber to the nearest available stream.

It is true that the lumber business had not been reduced to a science, except as the production of lumber is concerned. The business has not been reduced to the conditions of a stable and legitimate industry even, and probably will not be until the crop of timber planted by the beneficient hand of nature shall have been entirely removed and the inhabitants of the new world shall begin to cultivate and care for trees as they do other productions of the soil. The lumber business as at present conducted is to a great extent a speculative undertaking. The lumber is in the woods and if it can be got upon the market and disposed of in large enough quantities fortunes can be made almost as rapidly as in fortunate speculations in Wall street, or lucky strikes in gold mining. Men who were mill laborers ten and fifteen years ago have retired with princely fortunes or remain in the trade to become millionaires over and over. None of them has thought of creating a great industrial establishment to be handed down to his family into the third and forth generation. The thought of obtaining vast landed estates the timber of which should be prudently harvested and made a perpetual source of revenue to the latest generations has not entered into the thought of the lumbermen. They have looked upon the trees on the land they purchased as a present available asset to be as speedily as possible converted into cash, and thousands of acres after being stripped have been allowed to revert to the state. The policy of the lumberman has been the same as that of the miner, to get out as large an amount of the precious stuff as possible, make their stake and get out of the business. There has been much competition in the business and always will be until the pine lands become so limited in extent as to fall into a comparatively few hands and a monopoly con be created. Until that time shall come a single association will not be able to dictate the amount to be cut each year.—*Lumberman's Gazette.*

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### INGENIOUS WOOD CARVERS.

The Swiss peasantry are the greatest wood rvers in the world. They carve out of wood, th wonderful ingenuity, anything from a mple paper knife to an elaborate piece of ar- itecture in miniature. Aside from wood car- ng and some other mechanical operations, they e not good for anything, being very simple ople; but they have a genius for carving, and ve a natural skill for copying from nature. eir floral pieces are regarded as masterpieces, d serve as models for young sculptors. It only necessary to furnish them with a photo- aphic design of what is wanted. Most dealers o import Swiss carvings do this, although e peasantry themselves produce numberless ings without the aid of any suggestions.

They carve out of wood almost every kind of ncy articles, such as nutcrackers, inkstands, wellery cases, cuckoo clocks, ladies' work- xes, and a large number of other things too merous to mention. The tools they use are ry simple, the carving been done by hand. ie articles they carve are ingeniously orna- nted with leaves and flowers, and some of eir designs are extremely odd; they are, how- er, always artistic. Here, for instance, is a ece of carving in the shape of nut-cracker. is a life-like representation of a bear on its unches. Of course, it is made more for orna- nt than use, but its artistic merit is worthy careful study. The Swiss have a knack of rning the most simple article into a real work art. Here, again, is a book rack, a very mple form of bookholder for the library table, ving two side pieces on a sliding base; yet how beautifully the side pieces are carved, owing in bold relief a double rose surrounded th a mass of leaves and vines.

One advantage the Swiss have is in the wood ich they use. This is remarkably fine, and e from knots, and a tool cuts it as easily oss as with the grain. The kind mostly d is known to the trade as peachwood, which closely resembles in every respect. Another d of wood which is largely used is called inwood.

The art of the Swiss in carving wood first racted attention about 50 years ago. It was , however, until years afterwards that it s turned to account in a commercial point of w, and even then the sales of Swiss carvings re restricted to tourists in the summer sea- , who made their purchases through the in- mediary of hotel porters. Hence the trade s for a long time very small and unremuner- ve. But in the course of time local capitalists k the matter in hand, opened workshops, and an an export trade. The business of wood ving now finds employment for several hun- d persons. In fact, in one establishment ee hundred persons of both sexes are em- yed.

Each artizan employed in the workshops has or her specialty, the choice of which is left individual taste. Some have an aptitude and excel in the modelling of groups of an- ls; others prefer to carve various fancy icles with floral patterns, and some build niature chalets. The latter is one of the st popular articles of Swiss handiwork. As ally made, it is composed of different ured woods. The thatches with the ropes the stones hold them on and the deep roof prominent features. This roof is so con- cted that it can be raised like a lid; the t which represents the upper stories is lined h plush, and is intended as a receptacle for els. A movable partition divides this also n the first story, which contains a musical . This is set going by moving the top er. The prices of the articles range from to £8.

Few people make a specialty of Swiss car- gs, for the reason that the production is y limited, owing to inability to turn out the ds fast enough by hand. Besides, the rare of carving are made by the peasants at ir homes in the Alps, who work only in the ter season. In the summer they are occu- d in tilling the soil and tending their herds goats on the hillsides, a pursuit they love so ch that no amount of money could entice m from it.—*Timber Trades Journal.*

ubscribe to the CANADA LUMBERMAN.

### YOUNG TREES FROM THE FOREST.

*To the Editor of the Canada Lumberman.*

SIR,—Will you allow me to call the attention of your readers to the fact that the present time, and till the frost renders the ground too hard for digging, is the period when all deciduous trees, such as the maple, oak, elm, ash, hickory, basswood and others, may be had from the forest, or better still, if possible, from the fields adjoining, where they have grown from seed blown from the woods, and planted to best advantage. They may be taken an inch or more in thickness of stem and planted at once in their ultimate positions, or very young, and planted in garden beds, next year or the year after to be planted where they are needed. The first method is generally the most rapid of results, but the transplanting so increases the root fibres as to give great certainty of taking root and additional vigor of growth,—and one word of advice, if you take deciduous trees strip off their leaves, if any are on; if evergreens, keep their roots moist and covered till you plant. Evergreens will grow if carefully planted now, though their best time is June.

In the west, where planting is being done with a view of growing timber rapidly, they plant thousands of acres with trees in blocks of nearly a square mile, four feet apart every wa leaving roads here and there. These are mostl fast growing trees, which can when mature be cut out and used, leaving the slower and more valuable timber at certain distances. Grown thus, they need only cultivating lightly for two years, to keep weeds down and the soil soft, after which the branches shade the ground, and each tree striving to get to the sun light above, a very rapid growth results, which growth is all straight trees, the branches dying off in consequence of the closeness of the planting. The quantity of wood that can be got from some acres thus planted is very great. Some idea of the advantages expected may be obtained from the fact that wood is still plenty in parts of the same states, but the cost of transportation by rail would be such as to make it much cheaper to grow the wood than haul it.

Many of our wood lots have been so tramped, gnawed, and rubbed by letting in cattle, that they will never grow one-tenth the wood the same area planted would soon furnish. The remedy is to plant some acres where it will give both wood and shelter; say on the north side of the farm. The process on prepared ground is simple; two men will plant a thousand trees, or nearly half an acre, in a day.

Yours, etc.,
R. W. PHIPPS.

Toronto, Oct. 15th, 1885.

### THE PRODUCTION OF GOLD.

A single mining company in California reports the production of over $1,000,000 of gold per annum, and that its operating expenses are less than one-third the value of the product. Its dividends, it says, amount to $50,000 per month. The product of gold in the world reaches about $100,000,000 annually, and of this the United States produces one-third, Australia a little more than one-fourth, and Russia not quite one-fourth. The product of gold appears to be steadily decreasing in the world, as well as in the United States, while its use in manufactures is being greatly increased. Nearly one half of the gold produced in the United States is used in its manufactures. Nearly eight million dollars' worth goes into jewellery and watches, and three and a half million into watch cases. The other principal uses for it are gold leaf, plate and watch chains. The dentists make much use of gold, and yet in such small quantities that the whole amount credited to dentists in the United States is only $37,912 in 1883. The chemists use almost as much, a large share going, no doubt, to the photographers, who use gold in toning. The statistics on this matter, however, must be approximations, for quite frequently gold coin itself is taken for use in the arts.—*Philadelphia Ledger.*

CAPT. ETHUR, of No. 8 company, 65th battalion, is organizing an association among members of his company to take over the land given them by the Government and to work it for their mutual benefit instead of taking the scrip.

### Bald.

When Governor Cleveland visited the State camp at Newburgh, in 1883, he was attended by his staff in full rig. It was one of the few opportunities the governor's military family had enjoyed of appearing together in full uniform, and they presented a very handsome and even brilliant appearance. The Governor led the way through the private entrance to the camp closely followed by his secretary, Colonel Lamont. To the astonishment of his staff, the gate was then quickly closed and locked. As may be imagined, disgust succeeded surprise, when, in reply to vigorous remonstrances, the gatekeeper blandly remarked: "It's accordin' to orders, gentlemen. This is the Governor's entrance. The band goes in at the other gate."

### Fire at Fredericton, N. B.

FREDERICTON, N. B., Oct. 13.—Morrison's saw mill and two million feet of lumber were burned to-day. The loss is close upon $100,000. There was no insurance upon the lumber, but on the mill a policy was held for $20,000, viz., $5,000 each in the Royal, the Commercial Union, the Liverpool and London and Globe and the Western.

BELLEVILLE, Oct. 19.—John Oakham, while hunting deer with Judge Fralick and D. R. Leavens, near Bancroft, was accidentally shot below the left shoulder blade. He was a few feet in advance of Leavens, who fell, his gun discharging its contents into Oakham's body He is seriously wounded, but may recover.


### Blowng up Hell Gate.

has been a laborious and costly work, but the justifies the effort. Obstructions in any import ant channel means disaster. Obstructions in the organs of the human body bring inevitable disease. They must be cleared away, or physical wreck will follow. Keep the liver in order and the pure blood courses through the body, conveying health, strength and life: let it become disordered and the channels are clogged with impurities, which result in disease and death. No other medicine equals Dr. Pierce's "Golden Medical Discovery" for actingupon the he liver and purifying the blood.

### Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

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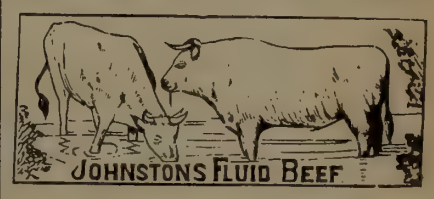


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Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., NOV. 2, 1885.*


A FOND DU LAC toothpick factory has received an order for 2,500,000 picks to go to Australia.

W. B. HIGH, of Oconto, Wis., recently took a logging contract, for which he was offered $10,000 before he struck a blow.

THE North Shore Lumber Company, of Manistique, Mich., recently loaded a cargo of deals for Ross & Co., of Quebec, the average price of which was $38 50 a thousand at the mill. The cargo amounted to nearly $12,000, and was destined to England.

THE new Canadian steambarge, B. W. Arnold, is said to be the largest steam craft engaged in the lumber trade of the lakes. Her capacity is 840,000 feet, and she has accommodation for 25 passengers.

S. A. CARPERTER lately returned to Chippewa Falls, Wis., from an expedition to the Hudson bay region, in the interest of a St. Paul and Minneapolis syndicate. He reports having found a country rich in minerals and pine.

AN Association was organized in Peterborough recently, for the purpose of securing the purification of the waters of the River Otonabee and Little Lake by the removal of sawdust, and prevent further deposits of the same being made in those waters.

A RAFT of timber was this season towed from French River, on the north shore of Georgian Bay, Ont, thr ugh Lakes Huron and Erie, the Welland canal and Lake Ontario to Kingston. The raft was valued at $60,000 and ultimately destined to Quebec.

BURTON BROTHERS, of Hamilton, Ont, have purchased a pine tract, near Republic, upper Michigan, and will convert what is suitable into board timber, and ship over the Marquette, Houghton & Ontonagon railroad to Marquette, and there load into vessels for Quebec. The coarser logs would be made into shingles and hipped to L'Anse.

THURBER & WALKER have sold to to the export Lumber Company 3 500,000 feet of logs, to be banked at Sable Point, Lake Superior, at $14 a thousand.

DON J. LEATHERS, of Grand Rapids, Mich., sold on Thursday of last week, for Ryerson, Hill & Co., Muskegon, to Hovey & McCracken, of the same place, 60,000,000 of pine stumpage in Newaygo county for $300,000.

THE *Timber* advocates holding an Exhibition of Forestry in London, Eng., with which mining and colliery exhibits should be connected. Canada could fill a considerable space at such an exhibition.

LORD GEORGE HAMILTON. First Lord of the Admiralty, speaking at Ealing recently, said that the Conservatives intended to add to the navy, during the next two years, nine heavy ironclads aggregating 80,000 tons.

THE work on Gilmour & Co.'s new dam, which they are building across the Trent river, at Trenton, is progressing rapidly. The dam will, when finished, have 17 feet head, and power enough to drive an unlimited amount of machinery. The company are also building a railroad from their mills at Trenton, which will connect with the G. T. R. and C. P. R.

## AN INVENTION.

Mr. A. Hoppins, agent at Kingston for the Rathbun Company, has patented a combined planing, grooving and matching or moulding machine. by which dovetail grooves are made longitudinally in boards with the wide end of the groove downwards, so that it may be plastered without any lath, the plaster forming a clinch which prevents its coming off. This is all done with one passage of the board. The machine has been sent to the mills at Deseronto where it can be seen working successfully. The judges at the Midland Central Fair awarded Mr. Hoppins a diploma for his invention.

## A NEW MOVE.

BRITISH shipping laws are strict, and owing to the high standard required for ships, according those laws, the Norwegians are said to have had an advantage over Canadians. All ships not coming up to the standard are condemned as unseaworthy and are not allowed to leave British port in which they are examined. In Liverpool, and other large sea ports, numbers of wooden ships built in Britain or its Colonies are laid up. But the outlay required to qualify them to pass is greater than the owners consider advisable to expend. or is more than the vessels could earn in a reasonable time. But these laws do not apply to foreign ships sailing under other than the British flag, and foreigners invest in these condemned ships. Norwegian owners can buy up vessels that have been condemned, but which are comparatively seaworthy, and employ them in the timber trade, and the Canadian shipping is thus subjected to unequal competition. Canadian shipowners have complained of this apparent unfairness, but a Quebec syndicate appears to have found a way out of the difficulty. A despatch from that city avers that a company intends to purchase two or three large second hand ships in English market, and run them in the Quebec timber trade under the Norwegian flag. By this means it is expected that the stringent laws will be avoided, and that with these vessels, cheaply acquired, the Quebec owners will be able to compete on more even terms with the Norwegians The benefits of the arrangement, if carried out, are obvious, the only difficulty being the danger of it encouraging the risking of cargoes and lives in unsafe crafts.

## THE COLONIAL EXHIBITION.

IT is very satisfactory to learn that great interest is felt in Canada in regard to the Colonial and Indian Exhibition to be held in London, Eng., next year. Sir Charles Tupper, during his visit to Canada, and other agents of the Government, have arranged for such an extensive display of Canadian manufactures, produce, etc., that a larger space than was at first proposed will have to be allotted to Canada.

It is important that Canada should make a good display for various reasons. The importance of the Dominion should be demonstrated. The English users of Canadiar goods should have an opportunity of seeing what the Dominion is capable of producing, and, as all other Colonies of Britain will be represented, an effort should be made to create a trade between Canada and the other parts of the Empire. A trade is already carried on with Australia in some kinds of wood and manufactured implements have been sent there from Canada, Could not the trade be extended? An additional reason why a good exhibit should be made is that an American exhibition will also be held in London next year.

## WINNIPEG.

The *Commercial* of Oct. 20th says :—In lumber business during the past week so far as can be learned does not show much change from our report of the previous two weeks. Mills generally seem to have about closed down for the season. There are calls for finishing and other lumber, but we do not gather that there is any great activity prevailing, with prices ruling a little firmer.

## MORE FAVORABLE.

The general condition of the lumber trade, as reported this week, says the *Northwestern Lumberman* of Oct. 24th, is more favorable than at any previous time since January 1st. The cheerful chorus has scarcely a discordant note, as to the volume of distribution, though there is still an undertone of complaint as to unprofitable prices. The demand is steady and strong, especially throughout the West, with a prospect that it will thus continue until cold weather checks consumption. The requirement is general and well diffused, there being no rush into any one state or quarter of the country, if we except Nebraska, which is probably receiving rather more than usual on the relatively low rail rate prevailing from Lake Michigan and northern, as well as river points, to Omaha. But the nature of most orders being received at wholesale points shows that the demand is still non-speculative and for immediate consumption.

A peculiarity of recent feeling among the retail dealers in the prairie provinces is that of satisfaction, because collections are easier than they were in the summer. The bountiful outcome of the corn crop has had much influence with farmers, who now think they have some resource for paying debts, and making improvements. Prices for farm products of all sorts are somewhat higher than they were in the spring and summer, which increases the farmer's revenue. General business also has a better look, which is favorable to the lumber trade. The late sag in prices of wheat came at an inopportune moment, though they will probably re-act as soon as the Minneapolis millers have bought in a supply, and prices may go higher than ever.

Outside of the conditions of all other business, and the prices of all other commodities, there is evidently an increase of cheerfulness among western lumbermeu, based on the heavy distribution prevailing, and the fact is becoming apparent that the winter will close in with considerably less lumber on hand in the leading markets than there was last year at the season's close.

The attitude of the manufacturers is having some influence on the trade. This has lately been manifested in the advances secured for dimension on the cargo market of Chicago. Wholesale dealers who go to Michigan to purchase supplies find that the mills are not well stocked with dimension, and that if piece stuff is contracted for to be sawed, it is done at an advance on former prices. The strike at Menominee tends to give the trade of this city more confidence in their ability to realize an advance. The dry stock in the Saginaw valley is sold down to a low supply, and more than the usual amount of green lumber is changing hands and being shipped.

An important feature of this week's reports is the evidence of improved condition in the South, especially in Kentucky, Alabama, Louisiana and Arkansas. That portion of the field of supply lying nearest Texas and Kansas is now realizing the benefit of the growing demand for yellow pine in those states In Alabama, and probably in Mississippi and Georgia there has lately been a brightening up of trade. Car sills are in demand at several of the southern mills. In fact, the demand for lumber in all that part of the Union lying between the Alleghany mountains on the east and the Rocky mountains at the west is now active and large. Some dealers report having all the trade they want. The only present complaint is that of too low prices for the profit of business, though there is a slight improvement in this respect, and more looked for. But the *Lumberman* is still inclined to caution dealers to not look for a sudden or important rise in the value of lumber until there is such a rise in other commodities, especially farm products There must be a correspondence between the value of wheat corn, oats, and other grains, cattle, hogs, etc, and lumber. If wheat should again take a turn upward and hold a price near $1 a bushel, and corn and other grain should advance to relative prices, the entire business interest of the country would feel the effect, and the lumber interest with the rest. Judging from present appearances, the prospect is good for realizing this better condition.

The spruce and hemlock trade at the East is absorbing the stock thrown on the market with reasonable celerity, prices at New York seeming to be a little more satisfactory than at Boston. There is still a plethora of white pine in all the eastern markets, as a result of the crowding in of western shipments on the late low rail rates. A check has now been given to the eastward movement, which will, in time, relieve the pressure, which has in a measure bothered the hemlock producers of Pennsylvania, the spruce manufacturers of New England and northern New York, and the importers of Canadian pine.

## CLOSED FOR THE SEASON.

The saw mill of the Port Arthur Lumber Company closed down on Saturday night for the season. It is their intention to continue running the planing mill. Although there is a considerable demand for lumber throughout the Northwest, the company find the difference in C. P. R. rates are so high between Rat Portage and Port Arthur to the Northwest territories, that they would not run the chances of competing with the former place, and, in consequence, decided to shut down for the season. It is highly probable that action will be taken by the American Congress dur ng the coming session in defference to an agitation now going on throughout the United States, for a repeal of the duty on foreign lumber. If this should occur in an immense market for lumber, especially from here, will be opened up at Chicago and elsewhere. The company besides having a large amount of lumber on hand, have plenty of logs here, with three million feet already cut, and ready for removal at pine River.—*Port Arthur Herald.*

## RAFTS ENTERED AT THE SUPERVISOR OF CULLERS OFFICE.

Oct. 5—J. R. Cryslers, elm, pine and ash, St. Michael's cove.

Oct. 7—Flatt & Bradley, white pine deals, New London cove.

Oct. 9.—Robert Dollar, waney white pine, Lemesurier's cove.

Oct. 12—Sundry persons, waney pine, Spencer cove.

Oct. 13—J. T. Lamontagne, pine deals, Commissioners' wharf.

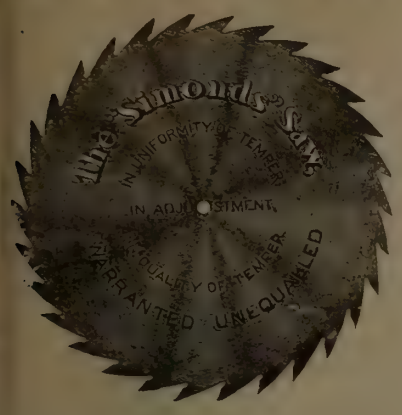
Oct. 13—Wm. Little, deals and plank, Thre Rivers.

Oct. 14—D. D. Calvin & Co., elm, etc., Ring's End cove.

A. Mercier & Co., oak and walnut, Bowen's cove, Sillery.

Joseph Ruson, Hercy, writes: "I was induced to try Dr. Thomas' Eclectric Oil for a lameness which troubled me for three or four years, and I found it the best article I ever used. It has been a great blessing to me." Frauds may imitate Dr. Thomas' Eclectric Oil in appearance and name but in everything else they are dead failures.

# ST. CATHARINES SAW WORKS!




## R. H. SMITH & CO.,

MANUFACTURERS OF EVERY DESCRIPTION OF

**SAWS.**

ST CATHARINES, ONTARIO.

ALL SAWS FULLY WARRANTED

Sole Manufacturers for the Dominion of Canada of the

**"SIMONDS" SAWS.**

☞ *All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.*


### MILL OWNERS AND MACHINERY.

Men who conduct great business enterprises are naturally conservative and averse to innovations and experiments. And yet it is through experimental knowledge, acquired by reducing theory to practice, that all progress in the useful arts is made. But it is not the business of the purely practical man to theorize; he is concerned only with actual results, and adopts those means which he finds ready made to his hand, and which he thinks are best calculated to produce those results The field of scientific speculation, in which the investigator reasons from cause to effect, and applies well-known principels and the laws of matter in working out those mechanical problems which relate to production and industry, belongs exclusively to the inventor. He is the manufacturer's best friend and benefactor, and yet he is sometimes regarded by the latter almost in the light of an enemy, because he is the instigator of changes and innovations, because he will not let "well enough" alone, but is continually coming forward with some new mechanical device or machine in the line of improvement, which revolutionizes the existing order of things, and which the manufacturer is compelled to adopt.

Hence there are many fossilized mill owners who dread the appearance of the inventor with his new machine, as the sick man dreads the oprtion of physic or the surgeon's knife which is to cure his infirmities and give him a new lease of life. He would rather be let alone and plod alone in the same old beaten track which leads to no progress, provided his contemporaries in the same line of business are content to do the same Even if it can be demonstrated that the new invention is one in the interests of true economy, and will pay for itself ten times over in the course of a few months, he is reluctant to investigate its merits, and don't care to experiment with it. He can only be interested on compulsion. Especially if its adoption would involve any considerable immediate outlay, he can't see any good in it and won't touch it until compelled to do so by the action of some more enterprising and progressive rival, who knows a good thing when he sees it, and who believes that the best is the cheapest in the long run.

It is undoubtedly true that the continual improvements in machinery involve frequent changes, which are sometimes expensive and burdensome to manufacturers. But on the whole the latter, as well as the great consuming public, are large gainers by these changes, on the score of improved processes and cheapened production. In this age of progress no producer of textile, leather or metal fabrics can afford to ignore any new device or invention which secures the bost results with the greatest economy of time, labor nnd raw material. In the race of trade competition he will be forced to take hold of these new things sooner or later, and he had better be among the first than the last to take advantage of them.

Of course we do not recommend the practical manufacturer to grab at every new patented machine which comes along regardless of merit. While open to conviction and ready to investigate, he also needs to be cautious, deliberate and discriminating in his action, in order that he may be sure to get the best, and not throw away his money on mere pretentious and catch-penny devices. There is no danger of his being deceived or imposed upon if his investigation is properly conducted. He is not called upon to take the word of any man, however well known or expert in machinery, as to the merits and capabilities of any new specialty. A mere guaranty of certain results should hardly satisfy him. It is not unreasonable for him to require the proof, the practical ocular demonstration; and the owner of any really meritorious patent will never shrink from the real test however vigorously applied. But after the demonstration is complete, and its utility is established beyond doubt or question, there should be no holding back, if terms are reasonable on the part of the buyer. A new and good thing in the machinery line, which is really wanted and needed by manufacturers, will not long go a-begging for customers.—*Manufacturers' Gazette.*

### THE MURDEROUS SET-SCREW.

Beware of set-screws when putting on belts. A set-screw is a terrible thing when running exposed. Mill owners should be made liable to a fine of a $1,000 for each and every set-screw left sticking out of their machinery, and said fine should be rigidly enforced by payment of $900 fine to the person who enters complaint against the owner and proves it. Unprotected belts are another source of dange, but they are as nothing beside the set-screws. Let every mechanical journal, every newspaper, and every publication in the world, raise a hue and cry against this demon of the shop. Every year it kills more people than does the smallpox, yet it still lies in wait for its victims in ten million shops, mills and factories. If we should go into all these places and see as many rattlesnakes coiled up all ready to spring whenever a man came within range, then we would get a fright that would last us to the grave. As it is, we pass as great a danger many times a day. We never think of it unless some poor fellow gets wound up or torn to pieces. Then, perhaps, we may get two or three pieces of board and nail over the man-killer, have a sigh for poor murdered Billy, and go to work until the next set-screw gets a victim.—*Jas. F. Hobart.*

### THE LUMBER TRADE.

By the census of 1880, says the *Lumberman's Gazette*, the total value of the products of sawed lumber in the United States is given at $233,268,720. Great as these figures appear to be, says the *American Merchant*, they do not approximate the value of the material when it has passed through various stages of manufacture and has given employment to thousands of people who devote their attention to and derive a livelihood from wood working industries. The valuation above given, it will, therefore, be understood, only covers what may be called the raw material and not that converted by the multiplication of the numerous articles which enter into use and consumption.

The variety of wood of American growth gives a wide range for the operations of the handicraftsman, and has led to the development of industries of a widely-diffused character, yet largely interdependent and altogether dependent upon the forest supplies of the country.

But while the timber lands of the United States are as a resource and supply the means of great industrial development for the people of this country, they are no inconsiderable factor in helping other countries to like development, and in supplying the needs of other people. Our export of wood and its manufactures make an item of our foreign trade which deserves attention. During the fiscal year ended June 30th, 1880. the exports of this character were valued at $25,255,128, a small amount compared with the value of the wood products of this country, as stated in the beginning, and very much more so in comparison with the results derived from the subsequent industrial reproduction.

But the sum of $24,000,000 representing one feature of our export trade, is by no means contemptible and insignificant, and that it has been attained despite the fact that very little energy—relatively—has been exerted for securing such a trade, suggests that with proper effort it can be expanded to an extent which will be limited only with our ability to meet the demands which may be made upon us.

The increase of our exports of lumber and of the product of lumber should receive the careful consideration of every person who is concerned in the business, and this thought should lead to persistent and earnest endeavor to enlarge the field of our foreign trade and to secure custom.

The appended table gives some details of the lumber trade which may interest our readers:

EXPORTS OF LUMBER, ETC., DURING THE FISCAL YEAR 1884.

| | *Quantities.* | *Values.* |
|---|---|---|
| Boards, deals and planks, ft..... | 414,920,000 | $ 7,079,701 |
| Joists and scantling, ft ..... | 12,622,000 | 195,043 |
| Lath, M..... ... | 9,180,000 | 22,295 |
| Pickets, pailings, &c., M..... | 1,577,000 | 16,615 |
| Shingles, M..... | 1,962,000 | 183,521 |
| Shooks..... | | 1,713,290 |
| Staves, &c..... | | 2,686,473 |
| Hoops, &c..... | | 356,470 |
| All other lumber..... | | 976,191 |
| Total ..... | | $13,208,599 |
| Cordwood, cords, | 2,646 | 9,464 |
| Sawed timber, ft. | 201,257,000 | 2,247,328 |
| Hewn, cubic ft.. | 10,615,063 | 1,735,382 |
| Logs and other timber..... ..... | | 1,704,633 |
| Total..... ..... | | $5,696,809 |

MANUFACTURES OF WOOD.

| | |
|---|---|
| Doors, sashes and blinds.....$ | 574,294 |
| Mouldings, etc ..... .... ..... | 173,661 |
| Hhds. and abls., empty..... | 320,184 |
| Household furniture..... ..... | 2,429,831 |
| Woodenware..... .... | 406,264 |
| All other manufactures..... | 1,714,838 |
| Total.....$ | 5,340,730 |
| Grand total.....$ | 24,255,128 |

### MACHINERY ACCIDENTS.

We dare say that more men are killed by accidents from the death traps than are killed by all the murders we read of, and where can you find even one case of this kind that has been published? Once in a while a poor fellow gets a leg torn off or an arm pulled out, and if he does not die he may, after a law suit, secure a few thousand dollars damages, but what a contract, life and limb against a few thousand dollars. We can almost cry out for a little of the Mosaic law about the eye for eye business, and say: When a man gets caught in unprotected machinery, let the owner of said machinery be cast forthwith into the same place, and let him be killed as an example. It sounds very much like barbarism, but it is good homœpathic doctrine. and is not a particle more barbarous than the idea of letting these machine-owner murderers go scot free and unpunished. —*Hobart in Lumber World.*

### AUCTION SALE.

The New York Lumbe Auction Company held its forth auction sale on the 16th inst., the attendance being good, composed of yard dealers, commission men and manufacturers. The prices averaged were not as good as at the other sales, which was due to the average grade being lower. White pine, 1 inch selects and uppers sold at $41 fine common 1 inch at $29, clear moulding strips at $24 to $25, pine box 1 inch, at $13, stock boards $13 to $13.50, 1 pine shelving at $16.50. Ash sold at $12 to $18 for mixed lots. Oak 1½ inch sold at $11; cherry, 7,410 feet, half of it 1sts and half 2nds, sold at $49; walnut, 1 and 1¼ inch, firsts and seconds, at $66; basswood brought $18.50 and whitewood $16.50.

THE Calgary *Herald*, commenting on the presence in that city of two Toronto dealers with the object of buying hides, discusses the question whether it will not be profitable to establish tanneries in that locality, where the raw material for the manufacture of leather is produced in such abundance. There is no doubt about a market being secured, the trouble being that in that region no hemlock is found. The problem is whether it is cheapest to move the hides to the neighborhood of the forests, or the product of the forests to the neighborhood of the hides. The *Herald* thinks the Government should cause enquiries to be made as to the capacity of the land there for the growing of hemlock trees, so that these could be planted for future use. More present needs it might be possible to supply with the extract of the bark largely produced in this povince and that now finds a market in the old country or the United States.

WAGES for men in the camps, in Michigan, range from $18 to $26 per month.


**SNOW DRIFT**

BAKING POWDER

*The Peoples' Favorite.*

w5

**W. D. MATHEWS & CO.**

Having made arrangements for purchasing GRAIN at Peterborough, will buy all kinds,

Wheat, Barley, Pease, Oats, Rye, Clover Seed and Wool,

☞ At Stevenson's Storehouse, North End

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## LUMBER AT PUBLIC AUCTION.

Time-honored customs and prejudices are features of a market which are difficult to successfully overcome, and when anything in the nature of an innovation is sprung upon the community it is very apt to create comment not always of a favorable nature. When it was first rumoured that a lumber auction company was to be established in New York city the matter was looked upon as of no serious nature, and those who thought enough of it to express an opinion generally predicted it would prove a failure. When the announcement was made that a company had actually been organized, and a date was set for the first sale, curiosity became rampart, comment was heard on all sides, and on the day of the sale a motley crowd of dealers, commission men, manufacturers, and a few producers were attracted to the company's yard. It is not our object to comment upon the probable success or failure attending the venture. Auction sales of horses, tea, molasses, and other commodities are not uncommon, and across the big pond the regular auction sales of lumber in the leading markets are a prominent and successful feature of mercantile life. With this in view the inquiry is pertinent: Why cannot lumber be sold at auction in this country, and the results prove satisfactory?

The leading objection in New York city emanates from the commission dealers, who claim that consumers are brought in direct contact with the manufacturers, and consequently their business, and likewise that of their customers, is injured. Suppose, for the sake of argument, that we grant such a claim to be true, why it is that manufacturers, with the prestige of auction prices, as the term is generally used, consent to ship lumber to be sold in such a way? No doubt it will be claimed that the shippers are coerced by misrepresentation, and would never ship a second lot; others will say that shippers have an idea that, by being brought in direct contact with an open market, in which all users of lumber are placed on a common level, they will be able to obtain a better price for their lumber, and still others will say that no mill man will ever consign good lumber to be sold in that way. All such opinions are worthy of a certain amount of consideration, but the fact stares us in the face that since the New York company started we have heard reports of the intended formation of similar companies in several other of the larger cities, and we are inclined to think that possibly in the near future a radical change in the methods of conducting the lumber business will be brought about, should selling the product of the mills by auction prove a success.

The causes which have led to such radical departure are many, and it is not at all likely that the mill men and the eastern seller will ever view the situation from a common standpoint, as the former judge the situation wholly by the results of consignments, while the latter take the general surroundings and the good will of the trade into consideration, and having, in addition to that their own welfare and the possible interests of their principals at stake, they may sometimes make a costly mistake, which the shipper, having all the money interests in the matter, may be obliged to pay for. It will be interesting for lumber dealers generally to follow the progress of auction sales, as the gradual developments of the new business will be liable to suggest many valuable ideas that can be put to a practical test with profit.—*Northwestern Lumberman.*

## ABOUT WATER-WHEELS.

Where are all the water-wheels? Everybody tells about his steam engine, how it bothered him, and how he fixed it, but we don't hear from a water-wheel once in two years.

They are not idle, even if they are not heard from; and the millwright, machinist, or M. E., who has to crawl into a wheel-pit on some December Sunday, makes noise enough to supply the deficiency.

The old overshot wheels have almost entirely disappeared, and peace be to their remains. They were awful good wheels to economize water, and awful poor wheels to keep in repair. They were the only wheels that gave good results with a partial gate. Take the best turbine in the market, even one that develops 85 per cent. of the power of the water, and when you want to run one or two machines and save water by using a partial gate, then you get left right off. The 85 per cent. doesn't come along at half gate, and neither does the 50 per cent., and often 40 per cent. stays away with them.

There is just one way by which we can overcome this trouble and get good results from a little water with a turbine wheel. We must put in small wheels and connect to the machines to be driven. A few years since most M. E.'s got in the notion of connecting all the machinery in a mill to one big shaft, and then driving said shaft by one or two big water-wheels or steam-engines. The M. E.'s are afflicted with fashions just exactly as the ladies are, and we will admit that the former's fashions are much more costly.

When a new idea comes up, then everybody must use that idea for everything. He must ride the hobby to death before he finds out just what it is really good for, and after he has done a thing, seen it fail, and then reconstructed it according to common sense, then that chap knows what his fashionable idea was good for.

The one-water-wheel fashion was fast playing out, and the one-steam-engine idea is going out with it. Everybody will want a water-wheel or an engine for each separate machine in the future. It is probable that this division of motive-power will be carried to the same ridiculous extreme that the consolidation scheme attained, but for small and variable water-power this method is the best known to practice. When a man gets to figuring up the per cent. of his water-power which is actually converted into work, and finds the same way down to the lower edge of the twenties, then he is apt to get thinking about the hundred tons of 5", 6" and 7" shafting that he is driving day after day.

When something happens to his water-wheel, and his whole mill stands still two days for repairs, then he wishes that his three hundred horse-power water-wheel was broken up into ten smaller ones. He might have ten times as many breaks, but they would delay only one-tenth of his plant.

The steam-engine men have found it out too. We will not have another monstrous engine built to drive all the machinery of a centennial exhibition. Instead of one, there will be dozens of small ones employed to do the same work.

When a man buys a water-wheel, he should buy the best one in the market, and when he selects that one, then he has done a thing which we don't know how to do.

Just advertise for the best water-wheel made, and you are answered by 392 men, each and every one ready to take oath that their wheel is the one which you want. You are confronted with wheels that are almost too simple in their construction, while other wheels are so complex and complicated that the water must be filtered, and almost needs steaming and bending, to enable it to get through the intricate passages.

Wheels with scroll cases are shown you and they are good ones, generally speaking, but the man who sells another kind of a wheel says the scroll-case wheel "will wear its step down stream." It will too, if it is not balanced, and put up true upon a straight shaft. Perhaps Tom turned the shaft too small, or bored the wheel a trifle large, then the wheels will not run true. Perhaps he sprung the shaft when he keyed on the wheel. This made a crank of the water-wheel shaft, and the up-stream side of that step has to stand the music.

When this crank business occurs in a wheel which takes water through chutes all around its circumference, then the step must go just as surely, but it goes from all sides at once, and wears out very much faster than with the scroll case.

Sometimes a wheel is set in a decked flume, and then condemned because it doesn't come up to the expectations of the purchaser. More than once this has happened, and the trouble has all been found in the flume. The shaft passed out through a stuffing box which was bolted firmly to the deck timbers and planking. The wheel didn't give 50 per cent. of the power expected. An investigation disclosed the fact that one corner of the flume settled when it was filled with water, and the shaft was drawn out of line 2½" thereby.

We don't want any of our water-wheels placed in a 4'x6' box. We want them where we can get them when they need repairs. Give us a water-wheel in a nice cast-iron case outside of the flume, and then it can be overhauled without much trouble.

The old frame flume is a thing of the past. We will have none of it. It takes up lots of room, and, when it gets to leaking, it is worse than ten leaky roofs. Give us an old boiler for a penstock. That is what all old boilers are fit for, with one exception, and that exception is to use the boilers for piers under buildings or bridges.

Patch up an old boiler so it will be water-tight, then place it on end in position under building or bridge. Now go to work and fill with cobble-stones, brick-bats, or any stone that will go into it. Pour in thin cement as you fill up. When the concern gets solid you will, if it is properly anchored top and bottom, have a pier which will stand much trouble. Fifty or sixty feet can be easily covered by uniting together a number of old shells not less than 48 inches in diameter.

These old shells make splendid penstocks; they are pretty safe there for they seldom are troubled with low water when used for this purpose, and the fireman never gets a shadow of an excuse to swear he had two gauges of water when the plates "melted" out.

A teehnical journal illustrated recently this use for old boilers, but one-half the things possible in this line have not been told. Keep the flume out of the mill. Run the old boiler to the canal or river and do away with the nasty rotten homely flumes.—*J. F. Hobart in American Machinist.*

## STEAM BOILERS.

In our contact with engineers, users of steam, and dealers in steam goods, we have often heard very positive preference expressed for one or another form of engine or boiler. Some would swear by a horizontal return tubular, others would have nothing but a fire-box boiler of the locomotive type, while others, comparatively few but as a class quite numerous, preferred the vertical tubular. Some have tied up "for keeps" to a water tube boiler, others will hear of nothing but a fire tube; some prefer the tubes numerous and small, others are contented with a smaller number, but must have them larger; some will have a boiler fired internally, some externally, and some even advocate removing the furnace from all contact with the boiler.

When we are questioned as to our preference in the boiler line we always require to know how, where, and for what the boiler is to be used. A boiler which will furnish steam with the least expense for fuel and repairs in a New England cotton mill might be the most inconvenient and expensive that could be used in a portion of the country less favored as to water. A boiler which would furnish admirably the low pressure and quantity of steam required for heating purposes might be entirely at a loss under the higher pressure, and the more intense combustion requisite as a source of power. The locomotive power is particularly adapted to its special work. It gives us the maximum of power in the smallest space and with the lightest weight, yet it would hardly be the most economical boiler, all things considered, for most stationary plants. When a man talks one boiler straight, through thick and thin, for all purpose, and in all conditions, it is safe to conclude either that he has an interest in that boiler or does not know what he is talking about.—*Boston Journal of Commerce.*

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Sept. 1885, and also for the 8 months ending Sept., 1885:

MONTH ENDED 30TH SEPT. 1885.

| *Timber (Hewn).* | *Quantity. Loads.* | *Value. £.* |
|---|---|---|
| Russia | 38,822 | 65,605 |
| Sweden and Norway | 43,688 | 62,989 |
| Germany | 21,686 | 56,253 |
| United States | 7,658 | 26 734 |
| British India | 3,204 | 43,876 |
| British North America | 61,094 | 274,965 |
| Other Countries | 36,149 | 54,191 |
| Total | 212,301 | 584,613 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 194,781 | 451,009 |
| Sweden and Norway | 191,525 | 401,700 |
| British North America | 230,936 | 545 894 |
| Other Countries | 32,853 | 94,177 |
| Total | 650,044 | 1,492,780 |
| Staves, (all sizes) | 14,332 | 53,427 |
| Mahogany (tons) | 3,119 | 60,312 |
| Total of Hewn and Sawn | 862,345 | 2,077,392 |

NINE MONTHS ENDED SEPT. 30TH 1885.

| *Timber (Hewn).* | | |
|---|---|---|
| Russia | 207,054 | 372,156 |
| Sweden and Norway | 419,001 | 586,095 |
| Germany | 245,404 | 567,777 |
| United States | 120,675 | 403,939 |
| British India | 28,610 | 387,962 |
| British North America | 188,254 | 830,602 |
| Other Countries | 312,147 | 443,273 |
| Total | 1,521,145 | 3,593,804 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 342,760 | 1,317,484 |
| Sweden and Norway | 1,317,787 | 2,773 644 |
| British North America | 683,798 | 1,674,846 |
| Other Countries | 277,968 | 826,119 |
| Total | 3,122,273 | 7,092,093 |
| Staves (all sizes) | 90,345 | 376,312 |
| Mahogany (tons) | 45,671 | 460,076 |
| Total of Hewn and Sawn | 4,613,418 | 10,633,897 |

THE prospects for the lumbering camps in the Lake Superior district, says the *Lumberman's Gazette*, are that the cut will be about the same as last winter. Pine lands have been in good demand for the past spring and summer, and a good deal of stumpage has changed hands. This will not effect the present cut, as investors have purchased to hold lands for a few years, the prospect being that in three years the pine will increase 50 per cent. in value.

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Oct. 1st 1884 and 1885, and also the Consumption for the month of Sept. 1884 and 1885:—

| | *Stock, Oct. 1st. 1884.* | *Stock, Oct. 1st. 1885.* | *Consumption for the month of Sept. 1884.* | *Consumption for the month of Sept. 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 392,000 ft. | 344,000 ft. | 304,000 ft. | 302,000 ft. |
| " Waney Board | 560,000 " | 598,000 " | | |
| St. John Pine | 63,000 " | 33,000 " | 29,000 " | 00,000 " |
| Other Ports Pine | 61,000 " | 70,000 " | 8,000 " | 3,000 " |
| Red Pine | 59,000 " | 33,000 " | 7,000 " | 0,000 " |
| Pitch Pine, hewn | 606,000 " | 568,000 " | 48,000 " | 75,000 " |
| " Sawn | 510,000 " | 855,000 " | 62,000 " | 245,000 " |
| Planks | 67,000 " | 100,000 " | 25,000 " | 49,000 " |
| Dantzic, &c., Fir | 67,000 " | 51,000 " | 8,000 " | 12,000 " |
| Sweden and Norway Fir | 109,000 " | 67,000 " | 8,000 " | 2,000 " |
| Oak, Canadian and American | 310,000 " | 421,000 " | 104,000 " | 106,000 " |
| " Planks | 179,000 " | 184,000 " | 67,000 " | 30,000 " |
| " Baltic | 9,000 " | 5,000 " | 9,000 " | 0,000 " |
| Elm | 43,000 " | 66,000 " | 17,000 " | 20,000 " |
| Ash | 46,000 " | 35,000 " | 12,000 " | 11,000 " |
| Birch | 102,000 " | 243,000 " | 41,000 " | 68,000 " |
| East India Teak | 71,000 " | 112,000 " | 6,000 " | 5,000 " |
| Greenheart | 36,000 " | 119,000 " | 18,000 " | 6,000 " |
| N. B. & N. S. Spruce Deals | 25,770 stds. | 20,931 stds. | 8,129 stds. | 11,451 stds. |
| " Pine " | 1 082 " | 250 " | | |
| Quebec Pine & Spruce Deals | 9.369 " | 6,493 " | 2,358 " | 2,897 " |
| Baltic Red Deals, &c. | 3,982 " | 4,896 " | 742 " | 709 " |
| Baltic Boards | 67 " | 254 " | 67 " | 129 " |
| " prepared Flooring | 2,172 " | 2,891 " | 842 " | 883 " |

# Chips.

THE Minnesota & Ontario Lumber Company is building a planing mill at Rat Portage, Ont.

THE incorporation is noted at East Saginaw, Mich., of the Standard Lumber Company, with a capital stock of $40,000.

COMMERCE through the Sault Ste. Marie canal between Lake Superior and Huron for the past year exceeded that of the Suez Canal by by 30,000 tons.

THE rafting operations of the Tittabawassee boom company this year lasted 89 days, during which 2 855 821 pieces were rafted, scaling upwards of 325,000,000 feet.

E. A. Bradshaw, lumber merchant and saw mill proprietor, was recently killed at Stouffville, Ont., by being struck by a train. He died in two hours after the accident and before his family arrived.

IT is reported that one of the heaviest manufacturers on the river heretofore has not let any contracts for logging and will not have any logs put in this winter. And another firm whose operations are usually large have said they would put in only a few million feet.

A LARGE number of diminutive rolling pins are being manufactured at Bellaire, Mich., factory. They are used by ladies, who paint them fantastically and thus make parlour ornaments of them. There almost countless ways of using wood, and the number still increases

THURSDAY in Brigham & Mussell's camp, near Sterling, Mich., John McFadden, of Seaforth, Ont., was instantly killed. He was working on a log road and was struck on the head by a rebounding limb while felling a tree. His skull was fractured and his neck broken. Deceased was unmarried and 35 years of age.

THE Saginaw *Courier* is informed that S. H. Webster, of East Saginaw, sold a tract of pine to L. D. Sanborn, 120 acres, at $10,000. Salling, Hanson, & Co., of Grayling, sold 700 acres to Sanborn & Hill for $21,000; 600 acres for $19 000, and 1,150 acres to the same parties for $65,000, all at an average of $4.50 to $5.00 stumpage. This timber is mostly all in Crawford County.

THE Big Mill of the Rathbun Company, at Deseronto, the *Tribune* says, cut 4,433,703 feet of lumber during the month of September. When we consider that the mill does not run at night this must be acknowledged to be splendid work. It beats the record, the quantity cut being far in excess of any previous month in the history of the establishment.

## THE WEIGHT OF AN AXE.

I well remember my first axe and my early experience with. It weighed 4½ pounds, being the heaviest one I could find at the time. I was freih from school—fresh from a class in natural philosophy, one of my favourite studies.

I knew all about *inertia*, and had learned something of the force of gravity and the laws of falling bodies; had rightly guessed that chopping wood might be hard work, and determined that my knowledge of physics should help me out.

I would have a heavy axe, a long handle—would move slowly, and take strokes that would count when they fell. My axe handle was 34 inches in length, the longest one in the store. I had hired a tough little French Canadian, weighing about 120 pound, to help me at this work. When he came he brought an axe—a mere toy I called it. I think it weighed 2½ pounds, with a handle only 26 inches long. I told him I had a fair-sized job for him, and thought it would pay him to buy a full grown axe. He smiled and said he guessed his would do. I tried to explain to him the beauties of a heavy axe and the wonderful advantage of a long handle. But it was all in vain: I was only wasting time; he could not understand it.

"Poor fellow," I thought, "he knows nothing of the beautiful science of physics. It is too bad that he should thus waste his strength through ignorance, and be unwilling to listen to the voice of wisdom."

We went to the wood lot and began work. I had decided that we would work separately during the first day or two, in order that I might show him what I could do.

As I began to swing my axe I felt proud of its ponderous blows that rang through the woods, and rather pitied the poor fellow who was drumming away with his little axe, taking about two blows to my one.

Presently I had to stop to rest, and then again, and still again; but Joe, my man, kept pecking away quietly, steadily and easily.

Every few minutes I would stop to take breath; but Joe seemed perfectly able to do all necessary breathing without stopping his work for the purpose.

When night came, we piled up our wood and measured it. Joe's pile measured 1½ cords; mine ⅝ of a cord.

During the early part of the day I had planned giving Joe another lesson in the evening, to see if I could not make him understand the philosophical requirements of an axe.

But when night came I decided that perhaps it would be as well to let him go on in ignorance, and thereafter remained silent on the subject.

The next day I felt lame, and stayed at home. Joe put his cord and a half as usual.

When I went to the woods again, Joe and I worked together. Not many days passed before I found an excuse for buying a lighter axe and a shorter handle. And every axe and handle that I have bought since then has been lighter and shorter than its predecessor.

Whenever I use an axe now I select one very much like Joe's, both in weight and length of handle. I can use this without getting at all out of breath, and can hit twice in the same place. The result is, I can do more and better work, and save a vast amount of strength. —*Timber Trades Journal.*

**The Proper Study of Mankind is Man,"** says the illustrious Pope. If he included woman in the list, he would have been nearer the truth if not so poetical. Dr. R. V. Pierce has made them both a life study, especially woman, and the peculiar derangements to which her delicate system is liable. Many women in the land who are acquainted with Dr. Pierce only through his "Favorite Prescription," bless him with all their hearts, for he has brought them the panacea for all those chronic ailments peculiar to their sex; such as leucorrhœa, prolapsus and other displacements, ulceration, "internal fever," bloating, tendency to internal cancer, and other ailments. Price reduced to one dollar. By druggists.

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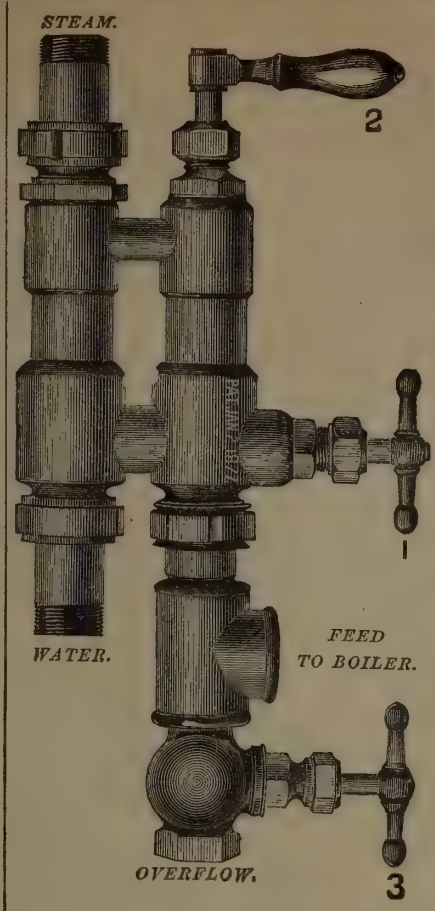


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# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

Oct. 23.—Since my last letter to the Lumberman trade has been quite brisk, although all the retail men do not admit that such has been the case with them. One thing is certain, however, that the N. & N. W. R. R Company have not been able to meet the demand for flat cars and all kind of cars, have been pressed into service, and the cry is still we want more. The closing up of shipments from Oswego have naturally created part of the demand, all who have anything to ship being naturally anxious to get it away to save the difference in the freight rates over the lake, which, owing to the large amount of grain now moving, and the consequent advance in the rate of sailors' wages, always advance at this season of the year.

Some of the grades of 1½ in. and 2 in. plank, hitherto scarce on our market, are now coming in more plentifully, owing to shippers having now got through most of their inspection of uppers for shipment, leaving the cut up to come on afterward. There will, however, be less lumber of all grades, excepting mill culls, left at the mills at the close of the season, than for several years past. This is acknowledged by all who are well posted in lumber matters, and if we can judge by the success attending the sale of timber limits held here yesterday, lumbermen have full faith in what the future has in store for them, the amount realized for the limits being in excess of the most sanguine expectations.

None of our retail yards are carrying large stocks. New yards are still opening in various directions and the largest number of wholesale men ever engaged in the lumber trade here are now operating in this city, but prices have about found their level and but little cutting in figures is now being done, bottom has been reached and no more room is left for cutting. The quantity shipped over our docks during the last two weeks is largely in excess of the same period during any part of the season, and a large portion of it has been good lumber.

The quantity of lath coming in by rail is small in amount, but arrivals by water from eastern points keep prices stationary. Shingles are coming in rapidly most of which are passing over rapidly.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 0 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1¼ " " rough | 14 00@15 00 |
| 1¼ " " dressed | 23 00@25 00 |
| 1¼ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅜ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₱ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## MONTREAL.

*From Our Own Correspondent.*

Oct. 24.—There is plenty of lumber arriving both by rail and canal as the winter supply is being laid in, and to all appearances it is going to be heavy, although there is little prospect of a good demand. Business continues to be very slack, but good hopes are entertained that higher prices will prevail in spring, as both in the United States and in the West better prices are now ruling. Prices in this market are fairly steady, and standard quotations at the yards are as follows:—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 22 00@24 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Bass, " " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@22 00 |
| Hard Maple, ₱ M | 25 00@30 05 |
| Lath, ₱ M | 1 60@ 1 70 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

SHIPPING.

Business is now pretty slack, except in deals. The South American vessels are now nearly all loaded, there being only three on the berth for that destination. A good many engagements are reported for deals, and the following vessels have been taken up for London at 50s. since our last report, viz.: SS Saltburn, Maharagah, Newcastle City, Roamina, Mirva. The following have also been engaged for Buenos Ayres: BK New Brunswick. at $12; SS Polynesian, $10.50. The following are the last two weeks: SS Lake Nipegon, for Liverpool, 2,545 deals and 12,427 boards; BK Republic, for Buenos Ayres, 662,273 feet pine lumber; SS Ocean King, for London, 20,788 deals, 8,047 battens, and 8,310 boards; SS Henrique, for Liverpool, 2,108 deal ends, 32,641 deals, 3.411 boards and 5,866 feet lumber; SS Texas, for Bristol, 3,745 deals; SS Brooklyn, for Liverpool, 5,806 pcs lumber. 3,553 deals and 10,820 boards; BK Dora. for Buenos Ayres, 745,155 feet pine lumber; BK James Ketchen, for Buenos Ayres, 416 224 feet pine lumber; SS Grecian, for Glasgow, 7,341 deals; BK Anna, for Buenos Ayres, 551,119 feet pine lumber; SS Lake Lake Huron, for Liverpool, 10,030 deals and 1,537 boards; BK Jeans, for Buenos Ayres, 384,105 feet pine lumber; SS Oregon, for Liverpool, 6,122 deals, 8,701 strips and boards and 3,631 boards; SS Oxenholme, for Liverpool. 16,588 deals and 896 deal ends; SS Concordia, for Glasgow, 12,894 boards and 3,330 deals; SS Cynthia, for Glasgow, 9,974 deals and 1,460 boards; SS Glenrath, for London, 1,742 deal ends; SS Barcelona, for Bristol, 7,942 deals; BK Petescotiac, for Buenos Ayres, 582,000 feet pine lumber; Carthagenia, for Liverpool, 240 pcs. deals.

CORDWOOD.

Wood is selling slowly and in small quantities, there is a fair supply both at the railway and river wharves, and a large number of barges are just coming into the wharf loaded with good long wood, Prices are on the whole well maintained ex carge as follows:

| | |
|---|---|
| Long Maple | $ 5 50 |
| Long Birch | 5 00 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 10 00@13 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of Oct. 24th says:—The port list shows 144 arrivals of lumber laden vessels for the week ending Wednesday, a number considerably under the average for the season. The cargo market has been meagerly supplied, though a few loads have been ~~~ered each day. Inch lumber has predominated, though the inquiry is mainly for piece stuff, which is wanted exceedingly and wanted right away. The result of the inquiry for piece stuff is to give the price another hitch upward. Good average short green dimension has been sold this week at $9.50 a thousand and that is where the commission men say that it must stay until the time when it takes another lift. Predictions are now common that green piece stuff will go to $10 a thousand before navigation closes.

Inch lumber is selling very well, is a little firmer in price, though not fully sympathizing with dimension. The general impression is tha there is enough inch lumber to be had at about prevailing figures. Cargoes with a large percentage of strips sell for strong prices, because strips are wanted in the yard with considerable urgency.

Shingles are in better request at prices as quoted.

Quotations on lumber and shingles are as follows:—

| | |
|---|---|
| Dimension, short, green | $ 9 25@ 9 50 |
| " long green | 12 00@14 00 |
| No. 2 boards and strips | 10 00@11 50 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@20 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 1 65@ 1 90 |
| " clear | 2 15 |
| Lath | 1 30@ 1 40 |

AT THE YARDS.

Visible indications are favorable to trade. The volume of current shipments is evidently large. There have been two days of severe rainstorm this week, as there were last, which tended to check business, so that the continuance of a heavy movement is rather more than could reasonably be counted on; the fact that the volume of shipment is well maintained is certainly encouraging.

Thus far this month, it is doubtful if there has been relatively as much lumber forwarded from the yards in this city as there was during a corresponding time in September. The movement during the first half of September was not as great as it was during the last half The current shipment corresponds very nearly with that of the first two weeks in September. From October 16 to 21 there were forwarded from the Twenty-second street district, north of south branch, 892 car loads, which was about the same number as was sent out for a corresponding portion of the week before. If the same ratio is continued through the month it is probable that shipments for October will not aggregate as much as they did in September But since the storm the movement has been increasingly brisk, and from now to the close of the month the volume, may so rise as to make the month's aggregate equal that of September.

Dealers who have a large business in Nebraska—and there are a few—are profiting by the low rate now prevailing to Omaha, namely, 13 cents a hundred. It is confidently asserted that this rate is cut to 10 cents for Omaha dealers, who buy in this city, at prices here, and settle their own rates at the other end of the route. But nobody here will acknowledge to getting lower than a 13-cent rate. The dealers who ship heavily to Kansas City and common points are looking anxiously for the decision of the committee of three in regard to differentials to Missouri river points, hoping that it will be for lower rates. It is said that the Alton wants a 12-cent rate, and the result will probably be a compromise on a 15-cent rate. The fact that the Omaha lines are giving a 10-cent rate from northern points to Omaha has a tendency to nettle Lake Michigan shippers and bring a pressure to bear on the general agents to induce them to reduce rates from this city and other Lake Michigan markets.

The assertion is made by the dealers this week that a stronger feeling has lately been developed in regard to prices. It is claimed that fencing, piece stuff and 12-inch boards are selling at firmer prices. It is said that No. 1 fencing is now quick at $13 a thousand, whereas hitherto it had been sold at $12.50; these figures pertaining to dealings between yards. Piece stuff is selling on teams at figures 25 to 50 cents a thousand better than heretofore, it is said, the range now being from $10.50 to $11.50 It is to be hoped that the claim to firmer, and in some instances higher, prices, is well founded; the *Lumberman* is willing to give the trade the benefit of the claim without serious question this once, so that dealers can, if they will, infuse a little strength into values. The stoppage of the Menominee mills will, some think, have a tendency to strengthen prices, as it will cause a shortage in several of the larger Menominee yards, and oblige them to sort up liberally from other yards. But it is not certain that the mills on the Menominee will long remain at rest. Negotiations are now pending looking to such an adjustment of the difference between the employes and the mill owners as will secure the running of the mill the remainder of the season.

Receipts of lumber, shingles, etc., from Jan. 1st to Oct. 22nd as reported from the Lumberman's Exchange:—

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 48,813,000 | 37,682,000 |
| 1884 | 51,215,000 | 16,949,000 |

FROM JANUARY JAN. 1, 1885, TO OCT. 22, 1885, INCLUSIVE.

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 1,449,894,000 | 622,789,000 |
| 1884 | 1,588,042,000 | 735,599,000 |
| Decrease | 138,148,000 | 112,810,000 |

LAKE RECEIPTS FROM JAN. 1 TO OCT. 1.

| | |
|---|---|
| Lumber | 1,262,312,000 |
| Shingles | 567,454,000 |
| Lath | 40,807 000 |
| Wood, cords | 24,540 |
| Posts | 3,069,8?3 |
| Railroad ties | 1,5?3,701 |
| Slabs, cords | 27,543 |
| Bark, cords | 20,002 |
| Poles | 40,?06 |
| Spiles | 2,000 |

STOCK ON HAND OCT. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 638,079,892 | 665,3?5,194 |
| Shingles | 358,569,200 | 335,262,075 |
| Lath | 62,781,962 | 63,368,268 |
| Pickets | 1,975,565 | 2,157 345 |
| Cedar posts | 575,938 | 458,787 |

## EASTERN FREIGHT RATES.

FROM CHICAGO AND COMMON POINTS ON CAR LOAD LOTS OF HARD AND SOFT LUMBER.

IN EFFECT OCT. 1.

| | |
|---|---|
| To New York | 30c. |
| Boston | 35c. |
| Philadelphia | 28c. |
| Baltimore | 27c. |
| Washington | 27c. |
| Albany | 28c. |
| Troy | 28c. |
| Buffalo and Pittsburgh | 17½c. |
| Shenectady | 28c. |
| Wheeling | 17½c. |
| Suspension Bridge | 17½c. |
| Salamanca | 17½c. |
| Black Rock | 17½c. |
| Dunkirk | 17½c. |
| Erie | 17½c. |
| Toronto | 17½c. |

The Temiscamingue and Kippewa timber limits, consisting of 465 square miles, which is part of the British and Canadian Lumbering Co.'s limits formerly worked by Allen Grant, have been purchased by Messrs. Gillies Bros., of Carleton Place, from Mr. Cockburn, who bought them at auction recently.

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₱ M | $53 00@55 00 |
| Pine, fourths | 40 00@ 0 00 |
| Pine, selects | 45 00@47 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1½-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2¼x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 05 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₱ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## LIVERPOOL.

The *Timber Trades Journal* of Oct 17th says:—The diminished import still continues, and the market is thus, for a time, relieved from that pressure which always arises from a desire to make sales from the ship side, in order to save the heavy charges consequent upon storing. Further there has also been a cessation from the numerous and rapidly recurring public sales, so prominent in the trade a few weeks back, which will tend to steady the market in the meantime, by mitigating the large consumption created by these forced sales.

The complaints of the difficulty—that is in

doing business in the manufacturing districts—are as prominent as ever, and though, at the time of writing, there were hopeful signs of the termination of the strike in Oldham and neighboring districts at no no remote date, yet we cannot expect it to have any immediate effect upon the timber market.

Another contingency may also be taken into consideration which will probably prevent any advance in prices during the remainder of the season, and that is the approaching municipal and parliamentary elections, which will, no doubt, have considerable influence in retarding business whilst the excitement lasts.

A requisition for 30,000 feet hewn pitch pine, and 6,000 feet red pine, has been issued by the Mersey Docks and Harbor Board, and put before the trade by their brokers, Duncan, Ewing & Co., and this will infuse some moderate degree of life into the trade here. At Thursday's public sale of spruce deals, Messrs Farnworth & Jardine offered part of a cargo now landing ex John E. Sayre, from St. John, N. B. The cargo was of good quality, and contained not only a large proportion of 11 inch, but the average length was much beyond the customary range, hence the strong prices obtained for these dimensions.

Spruce deals ex John E. Sayre, from St. John

| | | Per Pet. Stds. £ s. d. |
|---|---|---|
| 25 ft. & up | 3×11 | 8 5 0 |
| 12 to 24 " | 3×11 | 6 17 6 |
| 9 " 11 " | 3×11 | 6 5 0 |
| 12 " 15 " | 3×9 | 6 7 6 |
| 9 " 16 " & up | 3×7 | 5 15 0 |
| 12 " 15 " | 3×7 | 5 12 6 |
| 9 " 11 " | 3×7 | 5 7 6 |
| 9 " & up | 2½×7 | 5 15 0 |
| Broad deals— | | |
| 9 ft. & up | 3×12 and up | 6 0 0 |
| 10 in. deals— | | |
| 9 ft and up | 3×10 | 5 17 6 |
| 8 in. deals— | | |
| 9 ft and up | 4×7 and up | 5 7 6 |
| 4 in. deals— | | |
| 9 ft and up | 4×7 and up | 7 5 0 |
| Deal ends | | 4 12 6 |

## LONDON.

The *Timber Trades Journal* Oct. 17th says: Things were a bit more active at Messrs. Churchill & Sim's sale on Wednesday, buyers mustering in strong force; in fact we think the attendance was fully equal to any that have been recorded, both the room itself and the avenues leading to it being thronged with members of the trade. The chief attraction on the first day was, of course, the large parcel of timber, over 2,000 loads, in which was included the balance of Danzig remaining in the brokers' hands, and, considering the dull market they came upon we reckon the whole of it very well sold. Not only the East country timber, but the Quebec waney, as well as the elm and ash, all seemed to fetch fair prices, while a little lot of eight pieces of square yellow pine, of special dimensions, at 105s., was particularly favored. The pitch pine particularised on a supplementary sheet of the catalogue went cheap, the timber offered being a very good parcel; but with the demand so slack and stocks plentiful any othere result was hardly to be expected. There must have been a very heavy loss reckoning the first cost and dock expenses. Sometime earlier in the season a floating cargo or two were mentioned to us as being offered about the market at 45s., and if something like this had been a common rate, the sale price of that disposed of on Wednesday may not be so bad as it seems. Although stocks of this description are not heavier than last year, taking the average of the past four seasons, we have to deal with a very big supply at a time when the goods are least required. Let us hope that the turn of the tide, so long expected, is at hand to help the trade to clear off some of those large stocks before fresh additions are made to them.

The great scarcity of tonnage reported in the beginning of the year at the pitch pine ports and the long drought in the logging districts have not been able to prevent us experiencing a big stock in the docks at the back end of the season.

The time was not badly chosen by the brokers for clearing the East country timber they held, no sale of the kind having taken place for some time past, and that was on a much more moderate scale. Still prices might have been a trifle better if half the quantity had been submitted, which would have come within the compass of leading firms to clear; but there was not sufficient inducement under present circumstances to lay in stock a description that at the best of times has only a quiet sale.

The Quebec red pine was mostly under-sized, and at 40s. probably realized its full value, there being very little inquiry for this kind of wood in the log; it has, after all, to be converted, and the market has been pretty well supplied with deals, etc., of a similar class

Canadian red pine many years ago represented a considerable trade, but the large influx of logs from Sweden some twenty years ago drove the Canadian wood out of the market. The high price of Quebec yellow pine, and the consequent shortness of stocks, has stimulated the trade in other descriptions, and red pine, both deal and timber, has been a feature of the present year. Several of the reserved lots changed hands, but chiefly in the higher qualities. Some 14 ft. 1st bright 3x12 to 21 met with a buyer at £29 10s., which seems a lot of money for a standard of deals in these hard times, but we believe better prices even than these are being obtained outside the saleroom.

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in price; not much arriving.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1¼, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## QUEBEC.

The *Chronicle* of Oct. 23rd says:—The stock of white pine timber to winter will be very small, and is principally held by manufacturers. Shippers are not disposed to purchase at the very high prices asked. The only transaction that has lately taken place is a fine raft from Nipissing, consisting of about 80 000 feet of waney board, and 100,000 feet of square white pine, at about 31 cents all around. In hardwood a sale of Michigan oak of ordinary quality and make was made at 40 cents per foot. The following transactions in ocean freight are reported this week: Quebec to Greenock, timber 17 S.; Belfast, timber 18 S. The number of arrivals in port from the sea up to yesterday was 559; clearances to the same date 530.

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine | 3,366,019 | 2,198.453 | 2,796,786 |
| White Pine | 7,124,161 | 3,686,744 | 2,654.987 |
| Red Pine | 475,661 | 327,735 | 69,767 |
| Oak | 1,851,624 | 772,042 | 1,495,508 |
| Elm | 309,261 | 635,812 | 1,010,179 |
| Ash | 257,028 | 410,458 | 278,615 |
| Basswood | 2,244 | 4,544 | 95 |
| Butternut | 1,028 | 1,260 | 3,083 |
| Tamarac | 7,409 | 19,113 | 3,622 |
| Birch & Maple | 138.803 | 201,289 | 381,085 |
| Masts & Bowsprits | —pcs | —pcs | —pcs |
| Spars | — pcs | 41 pcs | 17 pcs |
| Std. Staves | 677.3.0.15 | 93.6.1.12 | 76.6.0.17 |
| W. I. Staves | 619.2.3.20 | 260.8.0.19 | 185.9.3:5 |
| Brl. Staves | 116.3.0.16 | 9.7.1.0 | 195.9.3.25 |

JAMES PATTON,
Supervisor of Cullers.

Quebec, Oct. 23.

## The Quebec Graving Dock.

QUEBEC, Oct. 22.—The graving dock at Indian cove is virtually completed, the last stone having been laid on Tuesday 20th inst. The coffer dams have still to be removed and a small portion of the wing walls outside the entrance to be built, which can be done at any time without interfering with the use for which the dock is intended.


MONTREAL SAW WORKS!

CHAS. M. WHITLAW, Manager.

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

—MANUFACTURERS OF—

CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,
TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY WHEELS, GUMMERS AND CUTTERS FILES, RUBBER & LEATHER BELTING, SWAGES, SAW SETS.

Montreal Saw Works — CHAS. M. WHITLAW MANAGER — OFFICE ST. PAUL STREET — Montreal, Que.

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# CANOES

*Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.*

*Gold Medal, London Fisheries Exhibition, 1883.*

J. Z. ROGERS,
President and Managing Director

nd 3 cent Stamp for Illustrated Catalogue.

anoes for Lumbermen, designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

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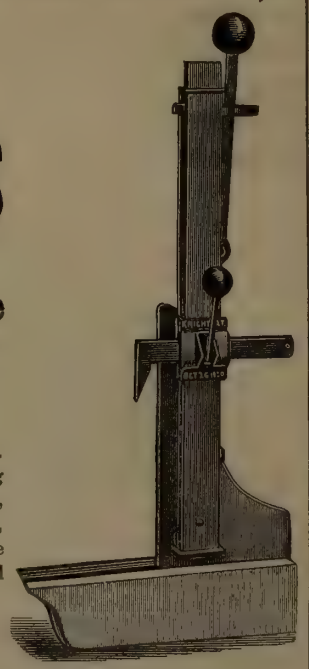
KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

## The Sawyer's Favorite

For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have Agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



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Manufacturers of
Patent Lap-Joint Star Rivet

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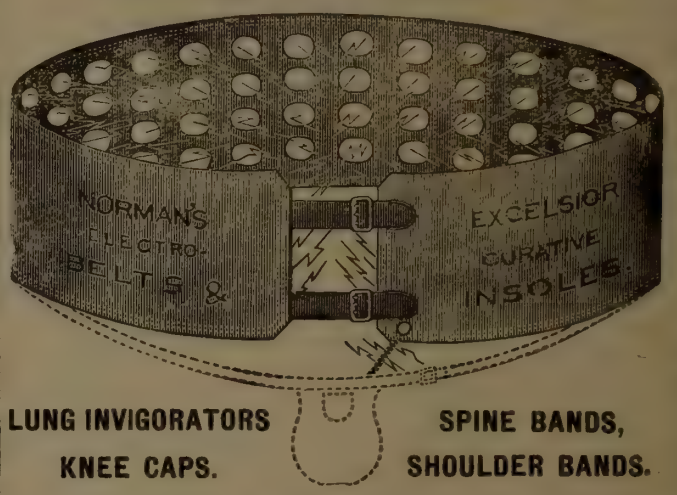
## To Mill Owners, Manufacturers & others requiring Leather Belting

Do not buy any Belting unless with DIXON'S PATENT LAP JOINT. It will last longer and do more service than any other. Please note the address, 70 KING ST. EAST, and send for Circulars and Latest Discounts.

# Norman's Electro-Curative Belt!

*4 QUEEN ST., EAST, TORONTO.*

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ESTABLISHED 1856

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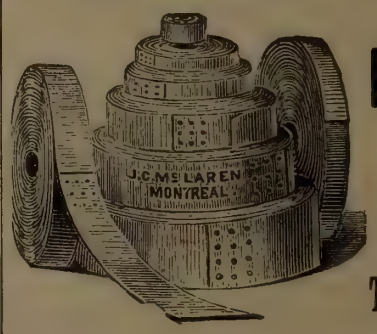


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IT WILL PAY YOU, BECAUSE :

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2. It is devoted to the development and utilization of our forest wealth.
3. It furnishes complete and reliable quotations of prices of lumber in all the leading markets.
4. Its columns are filled with interesting reading matter, valuable alike to the land owner, manufacturer or dealer.
5. It costs only $2.00 per year to have it sent, post-paid, to any address in Canada, and no land owner, lumber dealer, manufacturer or individual in any way connected with timber industries, can afford to do without it.

## ☞TO ADVERTISERS.

It has a circulation among saw mill owners, manufacturers, lumber and timber dealers and all classes connected with the timber business.

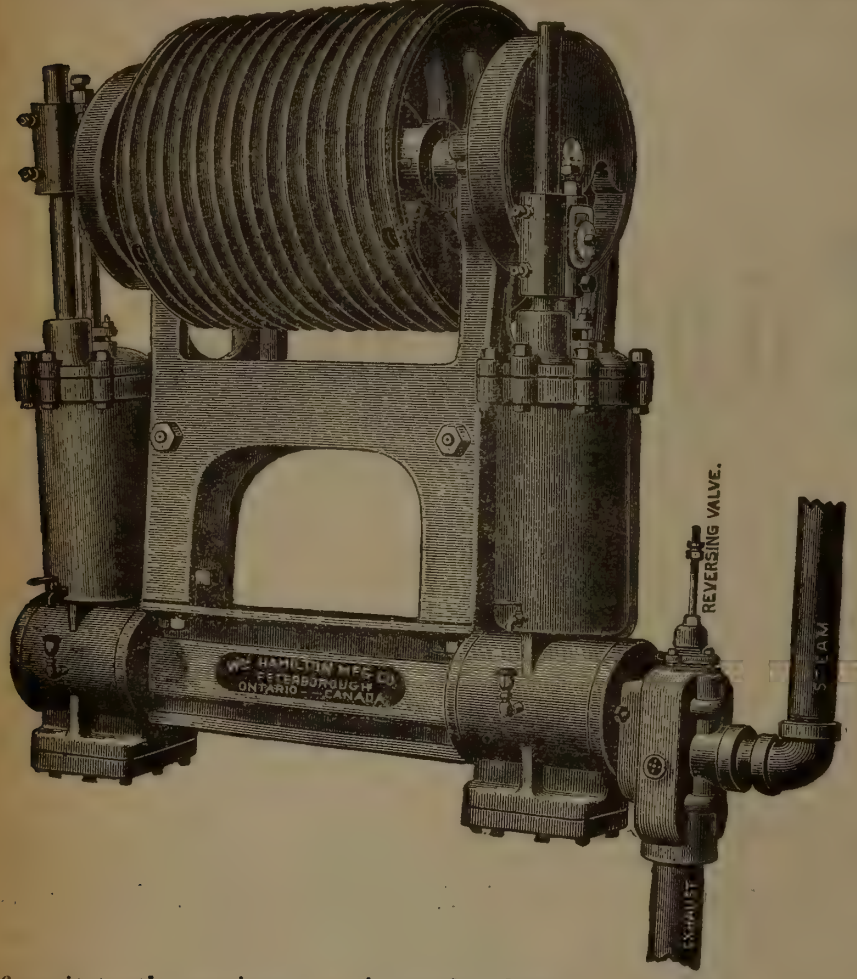
Examine the field, count the cost, and you will at once decide that the CANADA LUMBERMAN is the

*———CHEAPEST, BEST, MOST RELIABLE and ONLY TRUE MEDIUM———*

for placing your goods or wares before the saw-mill men and lumber and timber dealers of the Dominion.

# CUNNINGHAM'S
# PATENT OSCILLATING TWIN ENGINE
## FOR STEAM FEED IN CIRCULAR MILLS WITH RACK OR ROPE.

***This Engine has practically but two moving parts, aside from cranks and shafts. The whole array of eccentrics, valves, valve rods, connecting rods, cross heads, slides, levers, rock shafts, bell cranks, etc., is done away with, and the very perfection of simplicity, compactness, durability and cheapness attained.***




The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoupling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

## We would also call attention to our Improved Band Saw-Mill for cutting logs

☞ ***We guarantee this to be the best Mill of its kind got up, and would ask any one wanting a good Band Saw-Mill to communicate with us. We would also call the attention of Mill Men to our new IRON GANGS, CIRCULAR MILLS and MILL MACHINERY. For further information, prices, &c., address the Manufacturers,***

# The Wm. Hamilton Manufacturing Co'y, Limited
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# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

**Cheap.**

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***Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.***

***IF YOU WANT***

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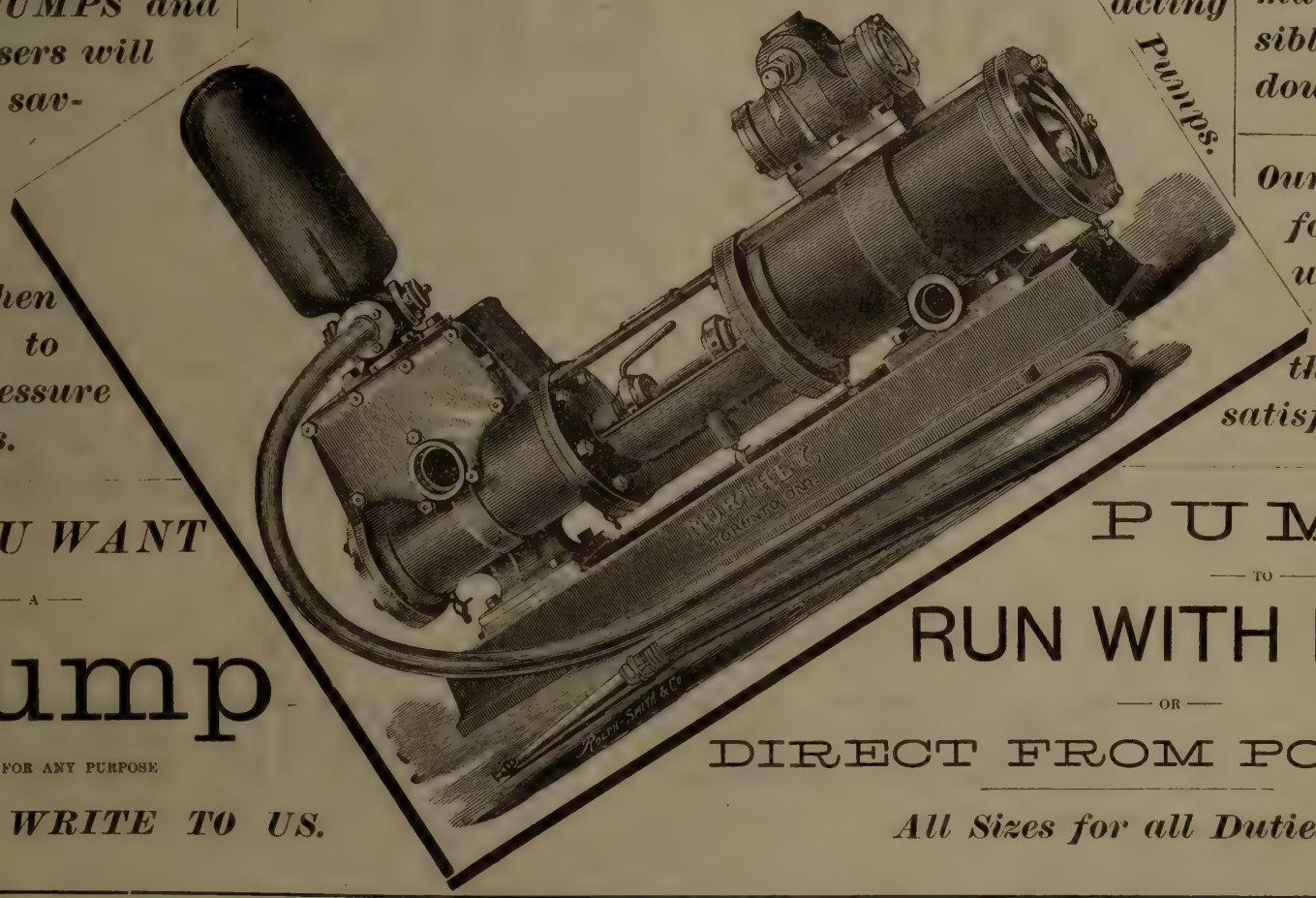
FOR ANY PURPOSE

☞ ***WRITE TO US.***

**Simple.**

***Only two moving parts in Engine.***




**Compact.**

***Having the well known compactness of direct acting Pumps.***

**Durable.**

***Guaranteed the most durable Pump made; impossible to break down.***

***Our PUMPS for general water supply give the greatest satisfaction.***

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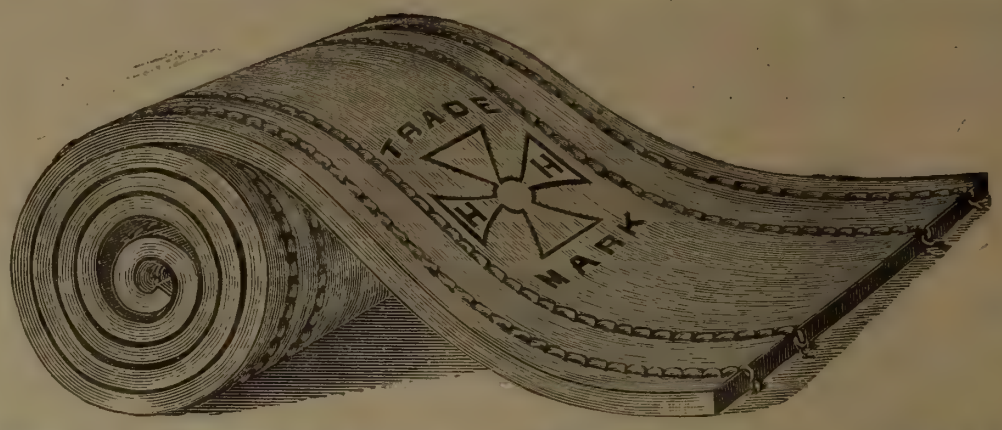
Foreman City Flour Mills.

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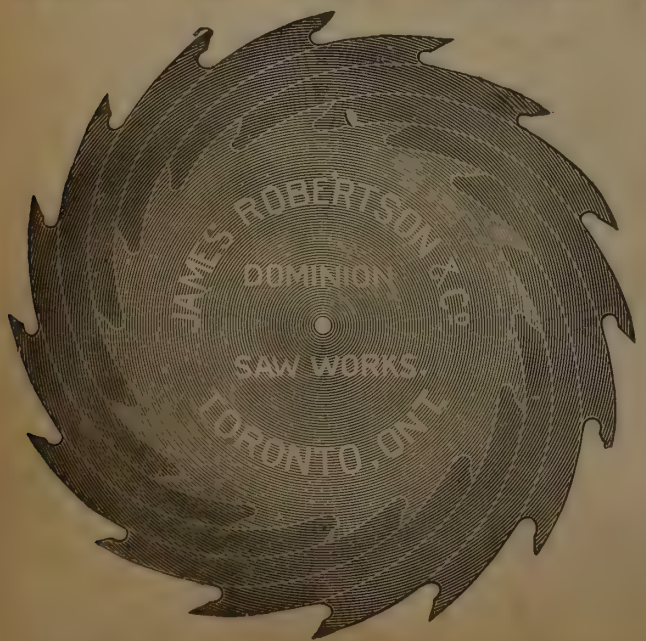


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AND MILLERS' MANUFACTURER AND MINERS GAZETTE

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

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**VOL. 5. PETERBOROUGH, ONT., NOVEMBER 16, 1885. NO. 22.**


### OBSERVATIONS OF MR. PHIPPS.

CHICAGO, Oct. 20.—Here on the wide, flat prairie, over which the winds blow with an intensity unknown in many parts of Canada, the value of the protection given by trees is acutely realized. "It is hard," says a wealthy propristor, "to have taken all the trouble to plant an orchard and, take care of it for some years, and then have it all killed by the frost." "Is it," I asked, "the intensity of the frost or the additional keenness of the wind?" "Oh, undoubtedly the wind. Those who have planted wind-breaks of other trees, or allowed the Osage orange hedge to grow up to trees along the exposed sides of their orchards, have not lost their apple trees. But of those who did not take this precaution, many, last winter being very cold, lost valuable trees. I lost nearly the whole of my young orchard. But the fact is that, though a good many forest trees are planted here, we do not plant one in every hundred we should." The same may be said in Ontario.

The prairie is, however, gradually becoming dotted with interesting groves, though it is plain that much remains to be done. Valuable as such protection is to field and orchard in Canada, it is still more so here, for the Canadian diversified heights and valleys—their succession of hill and dale—allow no such uninterupted sweep as does the level prairie land. One of these groves is remarkable, and I travelled some distance to see it. It is in Douglas county, not 200 miles from Chicago, and consists between two and three thousand large walnut trees, planted in the nut thirty years ago, and now eighty feet in height, and some of them eighteen inches through. This grove, tall, extensive, its high pillar-like stems, evenly rising in regular rows of columns; its level, broad, table-like summit of autumn foliage is a picturesque object seen far across the prairies, and affords one of the best instances in America by which to judge of the possibilities of walnut culture.

The method pursued in planting has been to set the nuts ten feet apart, and gradually thin till the trees are about twenty feet distant from each other, trimming off some of the lower limbs of those left standing, so as to procure tall, straight timber. Some of those are forty-five feet from the ground to the first branch. These trees were for the first four or five years cultivated with crops of corn, but after eight years they cast such shade that nothing else would grow. After about twenty years the ground was, and is now, covered with short, wild grass.

But, though this grove will apparently in another twenty years yield timber worth many thousands of dollars and yet leave much standwhich will in another twenty be worth hundreds of thousands of dollars more, yet there are points to be regretted in the method of its management, and some from which we may learn a useful lesson in Ontario. The grove needs a care now it has not lately had, or its existence is is danger. The owner is a man busy with many objects. His herd of thoroughbred and halfbred cattle here are large and very valuable. Cattle, splendid of coat and massive of form, were shown me, for which eight and ten thousand dollars each had been refused. He is a buisy man on the Chicago Exchange. He has other great farms—acres by the thousands—in Minnesota. Amid these and many other occapations this walnut grove—a plan and hope of his earlier life—has somewhat faded out of view, and the cattle on this home farm have been allowed to use it for shade and shelter. The result is what happens to all assemblages of trees, grove or forest, when cattle are allowed free scope therein.

What we should aim to preserve is perpetuating and increasing a piece of woods is a similar forest bed to that which nature prepares beneath the branches. It is a covering of rich, soft, porus soil below, which perpetually feeds the small rootlets that underlie the ground as far as the tree top spreads, and above this soil, and feeding it in turn, a decomposing covering of last year's leaves. But when cattle in numbers are allowed entrance this is impossible of attainment. Their trampling beats the ground hard, a dense, short, and not very nutricious grass overspreads it and takes to its own purposes the benefit of the decomposing leaves, which falling on the ground should nourish the trees. In this valuable grove in question, the ground is hardened by trampling throughout the whole extent of many acres, and not only has this injury been inflicted, but every tree has been used by cattle as a rubbing-post, so that the bark has been polished and thinned to their standing height. Above that, a glance at their bark shows a rougher and much more healthy covering. The process of injury to the grove has not yet resulted in the death of any of the trees therein; but coming into a path across the farm, which is bordered by over 150 large walnuts, we arrive at a place where the tramping and rubbing had entirely killed twenty-five of of these trees, and it needs no forethought that the same process continued in the grove will be in time eventually effective in injury. The farmer in charge, a relative of the owner, stated that they were aware that the trees were injured by the cattle, and were about planning means to give them shelter elsewhere. In the meantime, it appears to me that had they always been excluded, the trees would have now been ten years' growth the better. The best thing now would be, in addition to keeping cattle out, to lightly cultivate the whole soil, so as to destroy the grass, soften the soil, and give the roots their chance of obtaining nourishment.

Here are trees which, with fair treatment, should in seme years' time yield at leas $50 per tree, or the vast sum of $75,000. Yet the desire to improve his cattle has led the owner to allow their injury and even risk their loss. The same unfortunate mistake is made in many part of Canada. Fine pieces of woodss which might have continved to supply timber in good quantity yearly for ever, have been allowed, in order to make pasture for a few cattle, to become utterly destroyed in forest value, their saplings killed, their soil hardened and grass covered, and the whole woodland brought into such a state that the owner in a few years cuts down what is left and ploughs the land. The greatest forest authority in the United States has lately written that all that fire has done, all that the axe has done, has not equalled the injury inflicted by our own browzing animals. This, at first sight, would appear over-strained, but to those who have considered what the forest value really was and is, how important it is that certain portions of it should be preserved, and that it is those very portions which are being thus destroyed, it bears a different aspect.

There is a way now being practised here of obtaining a much more immediate return in planting groves, which I will describe in my next letter.

R. W. PHIPPS.

### LOGS FOR THE SAGINAW MILLS.

Notices of projects of bringing pine from the Georgian Bay lumber region to the Michigan mills have from time to time been given in these columns, one last week referred to the operations of Alpene lumbermen in that direction. They were in fact the first to turn their attention to that locality as a source of supply. One of the first of the Mschigan lumbermen to make a practical entry into the Georgian Bay pine were Folsom & Arnold of Bay City, who have built a saw mill on Spanish river, on which river they own large limits. Other men have from time to time secured interests in the same direction, and the suggestion that the logs might be brought to the Saginaw river to be cut has finally ripened into projects for bringing them here. Among those who have acquired limits in the Georgian Bay district are Emery Bros of East Tawas and the Saginaw Salt and Lumber Company, and the past week they have made a contract with reliable parties in this city for the transportaion of 200,000,000 feet to this district to be cut by the mills at Tawas and on the Saginaw river. There is to be built steam barges capable of carrying 600,000 feet and making a trip a week, bringing over 15,000,000 next season. Other owners of mills on the Saginaw river are said to be dipping into the Canadian pine and attend the sales at Toronto for the purpose of purchasing limits. Their idea is to secure pine to supply the Saginaw river mills when the near-by timber shall have been so much reduced so as to be no longer adequate. It is an important matter to attend to and if the cost of towing the legs across does not prove too great the scheme will be of great benefit to the river cities. The lumber industries is their main reliance and to take it away would give them a drop in importance. There are some seventy saw mills of the larger class here and they are well equipped. If they can be kept supplied with logs for 15 or 20 years longer they can earn a good deal of money for their owners and the Saginaw river cities will reach a development that will know no cessation in the future. This is a lumber mart and the advantage of bringing logs here to cut over removing the mills to scattered localities to cut the logs is obvious. There is hardly a doubt that the logs can be profitably brought here, since they can be brought in rafts surrounded by duplex boom sticks, if the earge plan should not prove profitable, although the risk would be greater. The seems no reason why bringing them over in barges may not be as successful and progtable as carrying lumber to Buffalo and Tonowanda, since the same plan can be followed of one steam barge towing a half a dozen escorts.

Logs are not to come along from the Georgian Bay region, however, but the upper peninsula is to be placed under tribute. Hill Bros. are putting in 25,000,000 feet in the upper peninsula which are to come to Saginaw to be cut and sold. W. J. & F. McGaw is mentioned as another who has secured pine in that region to be cut here. There is here every convenience and appliance for cutting and handling lumber, and the concentration of the manufacture is an advantage, as purchasers are drawn to this point by the certanity that they can find what they want. Then the transportation facilities from the river cities are excellent, and everything conspires to make the Seginaw valley a better point than any other at which to conduct large manufacturing and distributing operations. The plan of bringing logs here promises to very materially extend the period of the supremecy of the Saginaw valley as a lumber producing district.—*Lumberman's Gazette.*

THE Alpena and Saginaw ualley mill owners are about demonstrating the fesibility of bringing logs to their mills from distant forests in the Lake Superior region and that section of Canada lying north of Georgian bay. They will transport logs in great barges, towed by powerful steam tugs. This method of floating the piners to the mills, as it were, over wide reaches of water, often too tumultuous to admit of rafting, is nothing new, for it has been practiced for years by the Oconto and Sturgeon Bay manufacturers who have thus conveyed logs on Green bay. The method is perfectly safe and reliable, and is bound to come into extensive practice on the great lakes as the forests recede from the mills.—*Northwestern Lumberman.*


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### ENGLISH TIMBER TRADE.

In the course of a long article on the question "Is trade in England really improving?" the *Timber Trades Journal* says:—Liverpool, last week, was rejoicing in a check to the importation of timber, and for why? Because the reports from Manchester are couched in the same doleful strain they have so long worn, and which really appears to have become chronic in that neighborhood"—though the Oldham strike among the operatives had terminated.

In contradistinction to Liverpool, the east coast ports were flooded with wood goods during the same period—plenty to do in the landing and pil ing department. But remarks Hartlepool—a central emporium of trade—"There is a is very little to be said on the subject of demand, which is more than usually quiet." But in particular Newcastle was rather discomfited by an influx beyond either its expectations or its wishes. It was thought a month ago that Newcastle had pretty well got in its timber harvest for this year. A few straggling cargoes might still come forward, but the bulk of the supply was already to hand. Againt this anticipation 41 cargoes, all told, made their appearance last week, and we learn that the stocks are heavier than tuey have been for some years past, "and at no time was it more difficult to effect sales at the smallest possible margin of profit." And the same sentence, with a slight variation, would appear to apply to the northern ports generally. Everywhere there is an expectation that things will mend; but few can point to any external evidence of an improvement in prices.

We find the following in an American paper as late as October 14th:

"Business generally is said to be improving, but go into what line of business you may, you will find bitter complaint about no profits, no inducements, and theories for the betterment of things."

Notwithstanding this cry, which the writer does not altogether believe in, we are told that "architects and builders are still doing quite a business; a good deal of new work is coming up (at Bay City). The country lumber yards are stocked up, and the retailers are visiting wholesale yards for a good deal of stuff of one kind or another." And then he goes on to say: "The iron trade men are beginning to see the end of the little boom. The coal men are having a very active demand for everything they can mine. The makers of machinery are all busy, This demand is due largely to the fact that old machinery is being replaced by new machinery which can do more work at less cost. There is a good deal of saw mill machinery coming out, and wood-working machinery was never in more active demand." So that it would appear that there is a basis for the trade improvement spoken of, and much of the under current of discontent is merely a mode of expression which has become habitual, and is only meant to signify that the speaker wishes it to be understood that he has the means of doing a great deal more business than his actual trade amounts to. There is no doubt much trade doing here too, but very few think they have there due share of it, and the profit is generally understood to bear no comparison with the amount of money that is turned over in wholesale transactions.

In a computation having reference to the trade of these realms thre is an important influence which has been a good deal overlooked. The decline of our trade has come upon us at a time when money was obtainable at a smaller rate of interest, we believe, than at any period of our commercial history heretofore. Bills have been discounted, we were told in the money articles of the dailies, very recently, at the rate of less than 1 per cent per annum, though the kind of bill alluded to is not exactly defined. We presume that ordinary trade acceptances for goods sold, and bearing on them only the signatures of the drawer and accepter do not find quite so favorable a market. But the bank rate has been unusually low during the period of our foreign trade decay, which is as much as to say that a state of things conducive to financial properity has not been able to arrest the downward tendency of our great industries, most of which are said to be working at little or no profit, and to be only kept from collapsing by reducing the wages of their operatives.

Now an impression is gaining ground that money will be dearer, and if so, instead of improving, trade is likely to be further put back by that circumstance. Already there is a stiffening in the rate of discount. But that is not material, if the usual banking facilities continue as ample as they have been before. An advance of 1 per cent. is of small account. But when a rise begins it is generally the signal for a curtailment of discounts, and a closer scrutiny of the paper presented for that important accommodation. Nothing checks trade like a stringency in the money market. The man who does a large business by drawing on his customers at easy dates begins to get nervous when he finds his banker indisposed to place the bills to his credit quite so freely as usual. So he stays his hand from buying so largely, and the seller to him, finding that his goods are not wanted to the same extent as before, and having his own engagements to meet, endeavours to entice his reluctant buyer by reducing his prices. And thus from one end of the country to the other a sort of paralysis, nobody knows why, seems to fall upon their business. Fortunately this ordeal British trade has not yet had to face in its decadence, and if the political horizon continues as clear as it is now supposed to be in the stock and share market, the tightness may be only temporary.

On Tuesday the rate of discount in the open market touched 1¾ per cent., and it was said that the banks obtained from 1½ to two per cent. from Stock Exchange borrowers. But there is no harm done yet, and money remains wonderfully easy under the circumstances, and the remote contingency of the Burmise war is not likely to affect it appreciably, whichever way it goes. Nor need we anticipate that the supply of teak from Rangood will be thereby interrupted. In fact, it islikely to remove all the inpendiments to trade which still exist in the Irrawaddy, and to increase considerably our trade with those regions.

We are always on the outlook for favourable omens to the trade, but we must not ignore those that tell in an opposite direction. And though hopetul that the general impression of improving trade will be verified ere long, it is difficult to discern, as yet, any confirmatory evidences of its speedy advancement here.

### THE GOOD MACHINE HANDS.

Sometimes we get a mill hand who does more work and does it better than any of the comrades. Perhaps he is an ordinary looking sort of man, but every motion he makes seems to amount to something. He is never in a hurry, but he is rolling up a big pile of work and gets a job done before his neighbors are well started. What is there about this man that makes him so extraordinary? The fact is this man knows how to think. He has studied principles and when he sees a certain result he is in the habbit of studying out the cause of that. He has fallen into the habbit of doing work in the most economical manner and avoids all extra movements. He never turns a board over twice when only once is necesssary, and he doesn't machine a piece three times when twice will do the work. He has studie l his tool. He knows just how much he can force that machine and have it do good work. He always keeps the machine working to its full capacity and when on duty he keeps his brains, as well as his hands, upon his work.

Such a man will not stand over a machine and feed it with one hand while he takes a chew of tobacco with the other, and all the time he is thinking of a glass of beer and a base ball match. No, sir! When our man was hired by the boss he hired out his brains as well as his hands. He is conscientious and gives the worth of the money he receives. The beer man employs his brains in finding out Sam or Abe is getting 60 cents more than he does, and 90 cents more than he(Scatterbrains)really earns. When he ascertains this fact, he does all the thinking he is capable of to devise some way to get Sam bounced or get as much pay as Abe. Failing in this, this poor shop hand will turn attention towards getting up a strike. Then he his his fellow workman a great benefit as he stirs up discord among them.

Don't tell your chum what you are getting per day. It is none of his business. That question belongs only to you and your employe Not two men are worth the same money. One will do more and better work than his neighbor and that one should have more pay. If the inferior man hears of it, he gets himself and all concerned into discord at once. Fix your pay at what you are worth. If you don't know that point, you are not worth having.—*Cabinet-Maker.*

### LUMBER DRYERS.

We have had occasion to discuss from time to time the subject of overproduction, and are met on every hand with difficulties apparantly insurmountable. The improvements in machinery, the dispositions of men, the apparent cessation of the growth of the demand of lumber as compared with the growth of supply, and a thousand other difficulties that are naturally associated with the subject, and that can not be specifically considered in an article of this character, present themselves continually.

But there is one remedy for the removal of a large volume of the lumber now in the market. That there are orders on the books of nearly all the manufacturers for dry lumber, that cannot be filled from stock is known to every one who has any knowledge of the wants of the trade Now, we hold that the large stocks to be seen throughout the Northwest could be put on the market at less cost and greater profit, if every manufacturer would build and operate a practical dryer. There is but one argument against the construction of lumber dryers. "We can't afford it." This we undertake to deny positively, and assert that every man engaged in saw milling, cutting 10,000 feet of lumber a day, can afford to build a dryer, and make money on the investment besides.

| | |
|---|---|
| Ten thousand feet of white pine, green is supposed to weigh | 40,000lbs |
| Dry | 28,000lbs. |
| A difference of | 12,000lbs. |

Let us calculate a low average of freight, and say you can put your lumber into market for ten cents per hundred pounds, your daily ga in in freight alone would amount to the very handsome profit of $12; and as there are 226 working days in a year, let us deduct twenty-six days or a full working month, and your net profit for one year on the simple item of freight would amount to $2,400. But is this the only advantage gained by the use of lumber dryers.

It goes without any argument, that if a man disposes of his stock every sixty days at the nominal profit of about two per cent., his net profit for the year is greater than if he only disposed of it at once at a profit of ten per cent. And there is yet another advantage. The man who turns his capital over every sixty days at a profit of two per cent. is able to do the same volume of business on about one-sixth the capital invested, and realize a greater net profit on the entire business of the year than his competitor who carries a much larger stock and sells at a proportionally larger profit.

But there is yet another and still greater advantage to be gained by the man who has the small capital, and the facilities of turning it quickly, in his ability to supply his trade at any time within a few days, not to exceed ten at the furthest, with dry stock, even though it be of some unusual size, and by this means not only realize a profit on the sale itself but pleases and retains his customer, and have his capital again in his hands ready for another turn.

He not only is able to make quick returns from his capital invested, but receives on pine from $2 to $4 per thousand more for seasoned lumber than for green, and on hard woods all the way from $4 to $10 per thousand.

His expenses for drying lumber by any of the processes in common use is no greater than that incurred in hauling and stacking it in the yard.

His possible losses from fire are reduced to the minimum because of his ability to do a large volume of business with a comparatively small stock.

He gains another advantage in the amount of his taxes, and still another on the item of insurance. If he is so fortunate as to have a surplus capital equal in amount to the entire capital invested by his competitor, or even less, he has the advantage over him, in being able to make investments on the outside that will yield a profit, therefore enjoying double the benefits from his capital that are realized by his competitor.

He will be able to undersell the man who turns his stock less frequently, to serve his trade better, and hold it longer; his possibility of losses on accumulated stock is not great. In short the advantages are innumerable, the disadvantages few.

We are not advocating the claims of any particular patent or device for drying lumber. There are a number of lumber dryers on the market that are practical in their operation, that have already established their claims for public favor, many of which are capable of producing the desired results, and we cannot but wonder that their use has not become more general in the great lumber producing sections of the country.—*Lumber Trades Jounal.*

### THE FORESTS OF SIBERIA.

The Russian journal of Finance Minister has published a long article on the forests of Eastern Siberia, of which the following are the principal passages:—

"The immense forests of pines, larches, cedars, birches, aspens and limes which from almost the eqclusive wealth of this region belong for the greater part to the State. During a great number of years this source of wealth was almost entirely unproductive. It is only since 1869 that a more or less regular adminstration of forests has been established, and at the present time the extent of the forests in Eastern Siberia is estimated at 72,335,230 deciatines (about 11 square yards each.) These are divided between Tobolsk Tomsk, Semipalatinsk, and Akmolinsk. Of these forests, 21 355,760 deciatines have been accurately surveyed and 50,979,570 have been valued very approximately. One hundred and five forests have been conceded to the peasants, and they have an extent of 7,068,240 deciatines. In comparison with their enormous extent the forests of Eastern Siberia give at the present time but an insignificant revenue. The want of means of communication and an insufficient population greatly hinder its development. Still, the revenue is increasing, for in 1876 it was only 40,000 roubles, and in 1885 it was more than 111,000. The chief centre of the trade is in the town of Tomsk, and then Tumen, which is the point of departure for the river traffic.

### AN INTERESTING POINT.

With regard to the amount of growth to allow before cutting timber there is this to be observed: There is a proper time to cut a tree as there is a proper time to harvest a crop of corn or grass. If any one in cutting an aged tree, will observe the concentric rings or grains, he will usually notice that there has been a period of rapid growth succeeded by a period of very slow growth, and, in the case of a very aged tree, it often happens that, for the last score or more of years, growth has come almost to a standstill, the grains being so fine as to show that the tree had but little more than held its own for a long time. Now, for all purposes requiring strength this fine-grained timber on the exterior of the tree—the growth of 20 or 30 years, perhaps—is about as nearly worthless as anything could well be. And when we consider that the interior of the tree, which 20 or 30 years ago was vigorous and strong, has been waiting all this time to be put to use, until its vigor is exhausted and its strength decayed, it will be seen that it would have been better to cut the tree and obtain the benefit of its good qualities years ago. Much good ink has been wasted in deploring the destruction of our "primeval forests," but there are acres upon acres of trees in Connecticut that have been allowed to stand until their usefulness has been greatly impaired, sometimes destroyed, because we have not given sufficient attention to the proper time to harvest the crop after we have got it raised. Our hope of a future timber supply does not lie in the direction of preserving the old, which cannot be preserved beyond certain limits, but in producing the new.—*Ex.*

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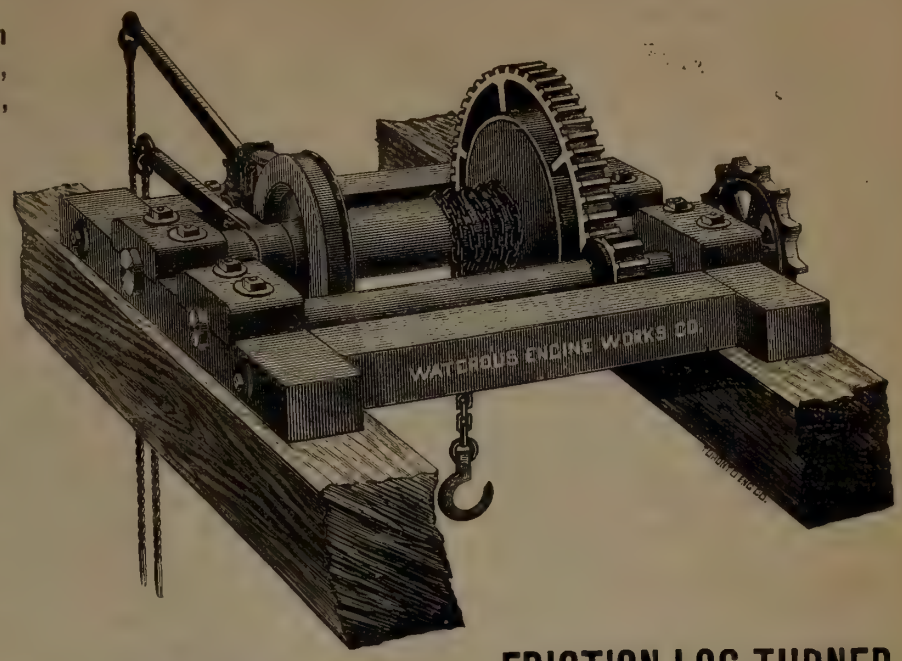


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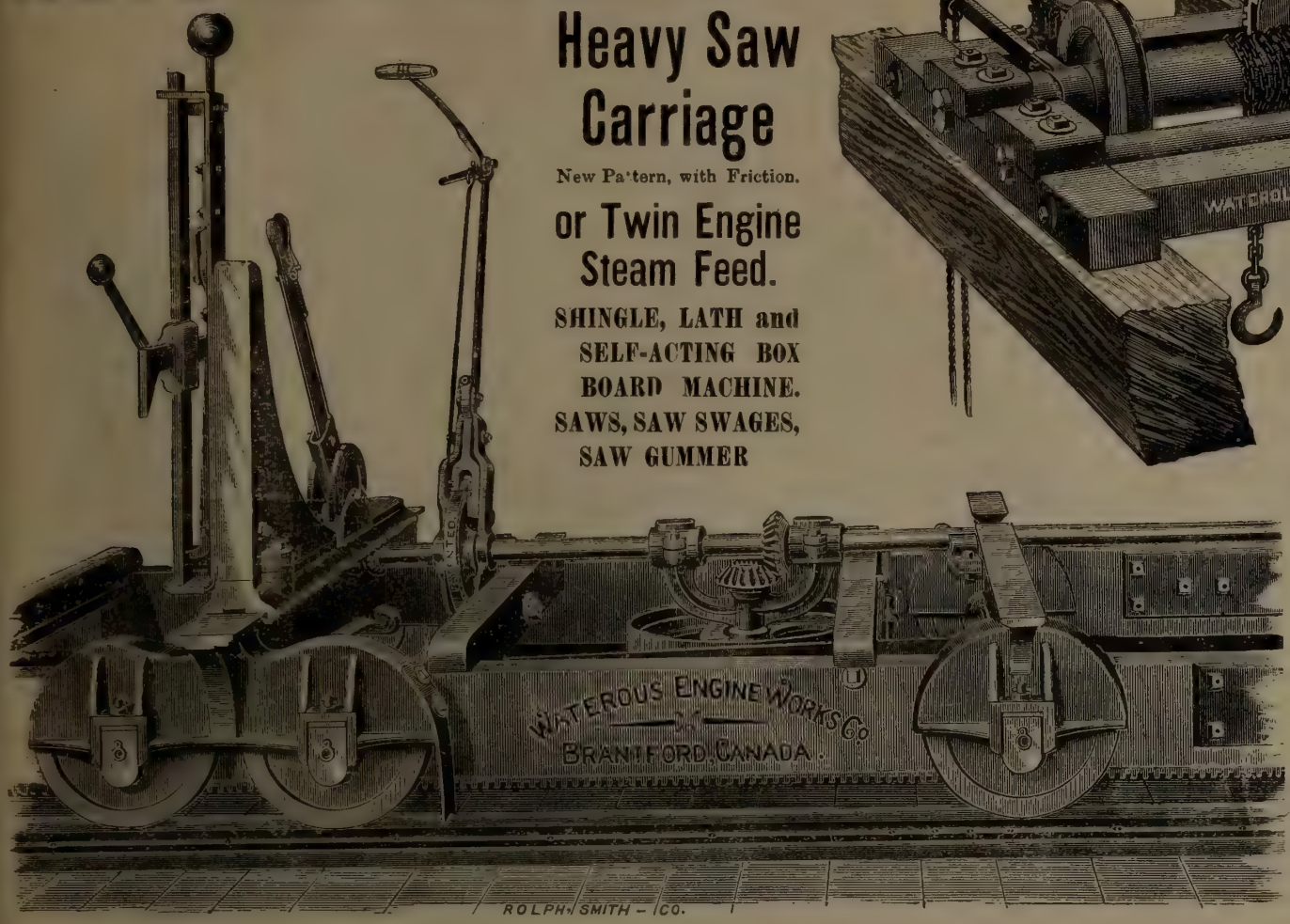


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### A STRANGE LIST OF JURYMEN.

The following curious list of the names of a jury empanelled at the Assizes held at Huntingdon, Eng., before Judge Dodderei, in the month of July, 1619, is taken from the London *Magazine*, for 1733. "Now one would think," says that paper, "that the whole country must have been picked on purpose to find out names to range in this whimsical order. But that as it was, is most certain truth, several copies of them being to be seen hung up in divers families there at this day; and it is self-evident that a comma placed after either the Christian or surname of these men gives a very different idea of their person:—Maximilian King, of Tozeland; George Duke, of Summersham; Edmund Earl, of Hartford; Stephen Pope, of Newton; Humphrey Bishop, of Bugden; Robert Knight, of Winwick; Robert Baron, of St. Neots; John Archdeacon, of Paxton; Edward Fryer, of Ellington; George Gentleman, of Spaldwick; Richard Deacon, of Catworth; Henry Prince, of Godmanchester; William Marquis, of Stukley; Richard Baron, of Byhorne; Stephen Cardinal, of Kimbolton Robert Lord, of Wazely; William Abbott, of Stuckley; William Dean, of Old Weston; Peter Squire, of Eaton; Henry Monk, of Stukley; George Priest, of Grasham; Thomas Yeoman, of Barham.

### RUNNING ENGINES WITH WATER WHEELS.

Whenever more power is needed, either constantly or at seasons of low water, or when variable work is being done, a steam engine may be attached to the line shaft which leads from the water-wheel by means of its main-band passing over a pulley on side line shaft (situated as near the wheel as practicable), said pulley to have such diameter as will permit both the engine and the water-wheel to make each its own regular speed. The effect of this is as follows: When the supply of water is ample for the work, the governor of the engine will shut off its supply of steam, or nearly so, and the steam retained in the boiler, little fuel being consumed. But when the supply of water fails, or the work is greater, for longer or shorter intervals of time the speed of th water-wheel is decreased, then this governor instantly opens the steam upon the engine, which in turn supplies just the amount of power needed to supplement and maintain the requisite speed of the line-shaft, so that, as long as the power from the water-wheel is sufficient to overcome its own friction and that of the line-shafting, so long will its own water be utilized, even when it would be insufficient alone to accomplish any work at all beyond overcoming said friction.—*Saw Mill Gazette.*

### To Prevent its Bursting.

An old lady read a paragraph in one of the papers the other day describing how a grindstone burst in a saw mill and killed four men. She happened to remember that there was a small grindstone down in the cellar, leaning against the wall; so she went out and got an accident insurance policy, and then, summoning her servant, and holding a pie board in front of her face so that if the thing exploded her face would not be injured, had the stone taken out into the road, where twenty-four pales of water were thrown over it, and a stick was stuck in the hole bearing a placard marked "dangerous.' She says it is a mercy the whole house was not blown to pieces before this —*Wood and Iron.*

### Brisk Work.

Since the Messrs. Rathbun began operations here a few weeks ago, their workmen have turned out 25,000 railroad ties besides large quantities of lumber and lath. The ties will be sold to the Grand Trunk Company to assist in supplying the never-ceasing demand for new material on that great line. Estimating the distance between the ties at three feet, the great pile now waiting shipment which has been sawn in so short a time, is sufficient to cover over fourteen miles of track. The mill will be shut down for the winter, shortly, and next year it will loom up double, or perhaps triple, its present size, and employ probably a force of men twice as large as that now employed.—*Campbellford Herald.*

THE Doran saw mill at Sharbot Lake, was burned Oct. 28th.

## THE SOURCES OF NATURAL GAS.

This a vital question with the entire western coal and iron districts, says *Bradstreets*, and especially with the country now adapting all its industries, as well as all its domestic requirements, to the use of gas as fuel. The western slope of the Alleghanies is the great natural gas field, but in addition to the coal formations proper, a vast area of shale and of limestone and salt-yielding formations is found to yield abundantly the natural gas, as the product apparently of chemical action constantly going on. Nearly all the land surface of Central and Western New York is at least interruptedly, if not connectedly, charged with valuable deposits of gas-generating strata. It appears that the late geological formations are all penetrated by hydro-carbon compounds in some form, and that the presence of the gaseous forms is the result of continous chemical action of the decomposition of other mineral forms, and therefore is now as free in its yield of gas as at any time since the existence of gas springs or wells was known.

Now that four-fifths of the iron and steel works of Pittsburg have prepared for the exclusive use of gas as their reliance for fuel, it is a business necessity to reduce this scientific question to the most practical form. All the cities and large towns of the coal and iron regions west of the Alleghanies, or north of them, as may be more appropriately said of western New York, are preparing for gas as fuel, as well as for purposes of illumination. The plant of piping already laid down is not unlike that of the earlier pipe lines for the transit of oil, and it is probable that the Pittsburg region may send a gas pipe line quite to the seaboard. Such a line is already projected, but it would be a serious business disappointment of the prolific gas wells of Butler county should in a year or two run dry.

Geological searches have been ordered into the probabilities of gas supply throughout the western counties of Pennsylvania, and some partial report has been made indicating a belief in the permanency of some degree or undefined measure of supply, but not on the point of continued and unfailing fullness. This is, however, the central question in the case: Can these wells be piped and tubed as far as the gas may be made to flow without the risk of early exhaustion? In answer to this question it may be safely assumed that the petroleum formations will yield gas even longer than they will oil. The strata permeated with oil will yield more gas, rather than less, by the drain which permits some air to enter the cavities, or rather permits the evolution of hydrogen from the water with the oil. Any movement of these retained fluids brings new surface in contact to work the oxygenation and hydrogenation of the carbon of the oil-bearing strata. And as all the shales are carboniferous, if not oil-bearing, these shales yield gas when they do not yield oil. Such is the case in many parts of western New York and Canada, as well as in Ohio, although there are few of the deep shales west of the New York line.

The best scientific view of the case, avoiding scientific technicalities, is that this gas is continuously formed by the common presence of the hydro-carbon oils and water, and this without limit of quantity or prospective exhaustion. The whole body of these carboniferous stratas abound in free oils, and in hydro-carbons, which constantly change their forms by further hydrogenation or oxygenation, or both. The dense liquid form becomes thinner, and if exposed to the air it changes rapidly to the volatile or gaseous hydro-carbon. If this change goes on in the presence of water the resulting gas is carbonic oxide, which is the best form for illuminatior. And the change to this form is increasingly favored by the boring and extracting of petroleum. It is in part generated when the pressure on the subterranean oil is relieved when a great new "gusher" is struck in boring.

The general conclusion is in favor of permanence in the productive capacity of the gas even more than the oil. It is probable that atmospheric air would be deprived of its nitrogen, and would acquire hydrogen and carbon by contact with these formations beneath the surface could this contact be brought about. The force with which the out-flowing gas is thrown indicates constant accretion of like matter. There would be more gas if there was room for more.

A change of stupendous magnitude has already taken place in the year elapsing since the notice of the hydro-carbon fuels were written in *Bradstreet's* of July 5th, 1884. What was then speculatively stated as being possible has become more than practical reality. The timid, who thought it might possibly be utilized, have become the most confident investors in the costly plant of piping for transportation of gas to great distances. And, as before stated, four-fifth of the iron and steel works of Pittsburg and Alleghany are now actually making their product by the use of gas fuel alone. If this should prove an only temporary reliance, and if the gas wells should soon exhaust the supply, the consequence would be singularly disastrous. They will not become exhausted, however, because the labratory of nature is even more actively in progress to create this form of matter as the earth's surface is pierced to liberate it from the submerged strata. It will continue to be generated in the expressive language employed to describe the perpetual peace insured by the early treaties with the Indians, "as long as fire burns or water runs."

## STRAIGHTENING SAW ARBORS.

What is the matter with the circular saw? Something is wrong with that machine. Listen to the peculiar noise it makes. When it starts and stops it sounds as though the saw was bent so that it struck against the saw bench. You have examined the saw very closely and find it nearly true and perfectly round. The trouble is not in the saw itself; but where is it? That is the question. The boxes are in good condition, well fitting and fit the arbor. There is no trouble there, and we are beat again. Do you give it up? Well, then, the trouble is in the arbor itself; it is "sprung." In plain English, the saw-arbor is bent just back of the collars. Here is a nice job for us. We will take that arbor to our "engine" lathe, and after thoroughly cleaning out the centres of said arbor, we will put it into the lathe and revolve it by hand, at the same time holding a piece of chalk against that portion of the arbor which runs out most, or in other words, shows the greatest desire to wabble. A nice and delicate method of doing this is to put a crayon into the tool post and bring it up to the desired spot by means of feed and cross feed.

By all means determine the exact point where the eccentric movement is the greatest. Mark this point and then take the arbor from the lathe and get a pressure upon the marked spot of greatest eccentricity. A screw press is the best method of doing so, but by placing the arbor upon two solid bearings equi-distant from the marked spot, a hammer blow delivered upon said spot will spring the arbor.

Care must be taken not to strike too hard or the arbor will get sprung too much. It will "run out" on the opposite side, and you will "laugh out of the other side of your mouth." Continue testing and bending the arbor until you can detect no error in its running. Then you can put it in place with confidence that the saw will run true.

The arbor can also be straightened without removing it from the lathe, but it is a barbarous method. It causes the lathe to suffer, and a true mechanic will not do it. The way it is done is to mark as before, turn the marked place uppermost, and by means of a block of wood and a lever, to pry up exactly underneath the mark and then strike upon the mark with a hammer. A semi-circular set to fit the arbor will prevent hammer marks. The man who uses this method will get a straight arbor every time, and get it very quickly, but the same man will be lazy enough to sit on the door step and smoke a T D pipe while his wife chops firewood enough to cook his dinner.

We have straightened saw-arbors without either lathe, press or lever. It is a "rule of thumb" method, however, and like the quack M. D.'s medicine, it is sure to "kill or cure," and kills every time if you do not guess right. We marked the arbor while running in its bearings, made the mark permanent by means of a centre punch, heated the arbor in a stove and got a pressure on the bent part by means of an iron bench vise. We guessed just right. bent the arbor just enough, and when the saw was started again it ran perfectly true. Never try this method if you have tools to do it the right way. If you have no tools and your neighbor has a machine shop full, then send the job there by all means, and not run the risk of spoiling it though trying a "by-guess" method.—*Cabinet Maker.*

## THE PRESERVATION OF TIMBER.

A writer in the "W. T.I," a journal published by the students of the Worcester Technical Institute, contributes the following interesting article on the preservation of timber, a subject which is of growing importance when it is considered that the sources of supply are growing less and less every year:

"The last census gave many unpleasant revelations concerning the proximate extinction of many of the forests, which have hitherto been so bountifully productive. These revelations make it apparent that the time cannot be far distant when our people will have to stop the waste of timber which has been going on, and resort for many purposes to the artificial preservation of wood from decay. Although iron and steel are being more and more extensively employed, yet the amount of wood which is used in our mechanical structures at the present time and which will without doubt continne to be so used for a long time, is surprisingly great. Consider, for example, the enormous draught made upon our forests to supply the ties requisite for one hundred and twenty-two thousand miles of railway in this country, allotting to each mile twenty-eight hundred ties. The average life of a tie is not far from six years, and, at twenty cents a tie, the value of those laid yearly foot up $11,386,636. It will be readily seen, therefore, that any process or processes, practical and economical, which applied would prolong the life of a tie ten or a dozen years, would effect a saving of millions of dollars.

"In the thesis, of which this is an abstract, the writer made use of the the following classification of conditions, to which timber is ordinarily subjected: Timber in dry situations, timber in fresh water, timber in salt water, timber in damp situations, timber alternately wet and dry.

"A careful study of the above conditions gave the effects produced in timber, and also certain of the causes of these effects. Eor the determination of the remaining causes, the germ theory of decomposition, as advanced by Pasteur and Tyndall, furnished a ready means. This theory, in brief, is that the phenomena or organic decomposition are caused by the presence and action of living germs. Examine a crack or wound in the trunk of a living firtree. It will be found that, by a natural process, a resinous sustance exudes, which closes the wound against the agents of destruction. The bodies of mammoths preserved in ice through countless ages; the trees of primeval forests, excluded trom the air, beneath thick deposits of peat; the fragments of wooden piles, which have endured undecayed for centuries, when driven deeply below the surface of water; all confirm the belief of Pasteur and Tyndall, and prove that the exclusion of germs prevents putrefaction. The writer made no attempt to draw the dividing line between the decomposing action of germs and the action of ordination. It was sufficient to submit that all influences which either destrcy or exclude germs, will prevent decay, only permanent effects must not be expected from agents which are not themselves permanent and abiding.

"The germ theory then becomes a salutary test in choosing antisedtics for the treatment of timber. Such treatment is of little value unless its effects will endure for long periods Reliance must not be placed upon those germicides, however potent, which will readily volatilize or dissolve in water. The substances to be employed should by preference be antiseptics in a double sense; they should be both germicides and germ excluders. From all research and experience, it would appear that the best antiseptics for timber are to be found among oils and bitumens, preference being given given to those that contain germicides. Of all processes, looking toward the preservation of timber, the one called creosoting has unquestionably given the best results, and it has practically forced all its rivals into obscurity by a species of 'survival of the fittest.' As the name of the process implies, creosote is the preserving agent, and is obtained by distilling coal tar. But first let us see what the term 'creosote' implies. This is important, seeing that it does not imply any compound of fixed chemical composition. It is in fact a composite liquid, made up of a variety of chemical bodies in differing proportions; the quality depending first, upon the kind of coal from whicn the tar is obtained: second, upon the details of the distillation and treatment. Broadly speaking, it is that portion of the distillate which comes over when the temperature is three hundred degrees Fahrenheit. It may be taken that about one-third the bulk of coal tar consists of creosote, or, as it is commonly called, 'dead oil.' It contains, first, germicides in the shape of carbolic and cresylic acids; second. germ excludes in the shape of certain bituminous bodies which solidify within the pores of the wood.

"The method of treatment which is generally considered to be the most thorough, practical, and rational is, that which involves, first, the subjection of the timber in close vessels to the action of high pressure steam for a sufficient length of time to enable the steam to penetrate all the cells of the wood, and to vaporize the liquids contained therein, these being afterward removed by a vacuum pump. After this preparatory treatment, the creosote is forced into the cells of the wood under powerful presure, the quantity of this sustance being regulated according to the use for which the timber is destined. If simply to be used for bridges or other elevated structures, the quantity of creosote reqired is less than for ties; if for piles exposed to the attacks of the Liredo, the fargest amount which can be forced into the wood becomes necessary. A railroad tie, skillfully and conscientiously treated with creosote, will endure, undecayed, until it is actually destroyed by the mechanical action of the rail, a period varying from twelve to twenty-four years.

"In many localities the cost of timber is still so low as to preclude any treatment of this kind, but there are many others in which its cost has already increased beyond that point where creosoting may be profitably employed. The area of such localities is continually increasing, hence no prophet is required to foresee that in the near future the adoption of some preservative process for timber will become imperative."

## BRITISH COLUMBIAS BIG TREES.

Speaking at Winnipeg, the Governor-General (Lord Lansdowne) thus referred to the timber of British Columbia, from which Province he had just returned:—

I shall always consider myself fortunate in having been compelled to ride on horseback by easy stages over this most interesting section of the line. New wonders are revealed at every turn of the road. Snow capped pinnacles of vast height and fantastic shape, great glaciers, preciptitous cliffs, raging torrents, tranquil akes, while almost throughout the whole length of the journey there rise on all sides trees the like of which I had never seen nor dreamed of. I shall never forget the spot in which our camp was pitched on the evening of one of the two days which we spent in traversing the gap. Our tents stood in a narrow glade surrounded on every side by cedars, not the cedars which we are used to in old Canada, but the variety to which the botanists have very properly given the the name of Gigantea, and which tower 200 feet and more towards the sky By the light of our camp fire it was possible to see these huge grey stems stretching upwards till they lost themselves in the darkness, reaching, for all we knew, to the stars which twinkled down upon us from the vault above, and this grove, the trees of which were probably nine or ten feet in diameter, was only a fair sample of the forest which, composed partly of these and partly of the beautiful Douglas fir and hemlock, clothed the hillsides for miles on either side of us.

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### LIFE AND CHARACTERISTICS OF FOREST TREES.

Eleven years ago I examined the stumps of two white oaks and the grave of the third, which told this singular story by circumstantial evidence so strong that it could not be doubted: In the year 1502 an acorn fell about one a half miles from where I am now writing, (Rockville, Ind.) and by favorable chance sprouted and grew into an oak. In 1594 another acorn sprouted about 20 feet distant from it. It may have grown on the tree mentioned, as it was then 92 years old. In 1731 a tornado from the northwest blew down a still older oak, which in its fall struck against and greatly damaged the top of the one born in 1502. There is to-day the well-marked grave of the fallen giant, the dirt piled upon the southeast side of the hole, and a long depression in the ground where the trunk fell and rotted till not a vestige of its wood can be seen to-day (though some traces of the bark of the roots can). This depression points to the stump of the damaged oak. The two younger had been freshly cut down when I examined them. Their stumps were about four feet across and there was not over an inch difference between their diameters, though 92 years difference in their ages. The younger had a large, healthy top, no broken or dead limbs, and it had put on rings of growth from the beginning of more than average size. The older one had been injured in its branches by the fall of the still older one before mentioned (in 1731) and for 57 years had put on very small rings of growth (about 25 to 30 years to the inch instead of twelve to fifteen, as it should), when a new set of branches developed to to take the place of the damaged ones, and the rings began to increase in size and gradually attained to the average. I examined their tops, which coincided with what has gone before. There were the peculiar knots in the top of the older one where the dead limbs had rotted off and were healed over. (Any expert timberman will readily recognize them.) During this delay the younger oak caught up with the older one in size. The size of a tree is a very uncertain indication of its age.

In all the cases of the hundred I have examined of the oaks (the oldest trees of the forest I think), I never saw but one that was here when Columbus discovered America. That one was by far the largest I ever saw, and was over 600 years old, about twice the age of the other largest ones. I could not get its exact age, as it was so decayed near the heart I could not distinguish the rings. It was between six and seven feet in diameter, and forked about sixty feet up, and each fork was as large as the other largest trees. It was not sound enough to make good lumber, being what in this region is called "doughty," a state between soundness and rottenness. It had been down a year before I examined it (being out of the country when it cut), so that it was very difficult to examine it. I have mislaid my memorandum of it, but it would be about as follows: At the age of 200 years it had some ill-fortune which caused it to form about 100 small rings. It then regained its health and formed normal rings for 140 years, when another mishap caused small rings till within the last fifty years, when it was putting on fair growths again. This tree was, about one and a half miles from Rockville, Ind., and was noted among hunters and woodsmen. It was a disagreeable, showery day when I examined it, and for that reason I did not examine its top to see if dead and lost and healed over limbs coincided with the small rings, but I have often done so in other cases and found them to coincide.

Last May (1884) I examined a sycamore and water elm in the Wabash River bottom, the former six feet in diameter, and the latter five, each 180 years. They stood about 150 feet apart. They were standing on the upper end of a newly made bottom (I mean new as compared with the higher and older bottoms a little more inland from the other, say 200 years old.) This was the largest sycamore I ever saw that was sound to the heart. I have seen hollow ones nearly eight feet in diameter. This tree seems never to have met with any mishap till the log man came along, as the rings of growth are unusually large.

These trees very probably sprouted twelve to fifteen feet below the present surface of the bottom. They generally begin life on the lowe[r] end of river sand bars, and as sedimentation builds up the surface, they put out new surface roots at every two or three feet of elevation. Such trees, with their several sets of surface root, are often seen in drift piles, and also still standing on the verge of a deep river bank, where one side is exposed by the erosion of the river. Their roots are often hollow, like their trunks, the hollow (and root too) decreasing in diameter downward until it terminates in a point, like a cone standing on its point. In the southwest corner of this county is a hollow cottonwood stump on what is now a high bottom of the Wabash, in which the hollow extends downward twelve feet. Mr. Joseph J. Daniels an intelligent, observing man, on whose land it stands, told me so. Such silting up over the surface roots would kill most of the upland trees, or those that grow from the seed on the high bottoms.—*Naturalist.*


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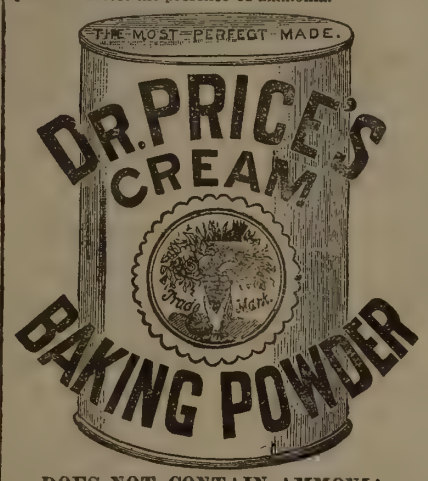


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DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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*PETERBOROUGH, Ont., NOV. 16, 1885.*


THE Maine lumber operators, with one or two exceptions, have agreed to employ no men in the woods the coming winter unless they have recently been vaccinated.

THE Brunette sawmill, British Columbia, received a log one day last month which measured 110 feet in length and 52 inches in diameter at the small end. It was straight and free from knots the whole length.

MESSRS. Mack, Howes & Belts, of Winnipeg, have established a mill for silver quartz crushing and a saw mill at Otter Tail, N. W. T, near the Rockies. They will begin the regular manufacture of lumber next spring.

THE depression which has existed for some time in the shipbuilding trade of the Clyde is increasing in severity. There are so many men out of employment that the relief committee find great difficulty in supplying aid to them. There was forty-seven stowaways discovered in the hold of a vessel which was about to sail for America.

A NEW fuel, or an old fuel in a new form, is being manufactured at Cow Bay, Cape Breton, by Messers. Archibald & Co. It is the slack coal pressed into the shape of bricks. In this way a good deal of coal dust that has been selling for from nothing up fifty cents per ton at the mine is utilized in this solid form, especially for steamship use, and in the shape of bricks realize $2 per ton.

AT their convention last summer the lumbermen of the northwestern States decided that it was necessary, in the interest of trade, that the production should be largely curtailed. It is now reported that the output next season gives promise of being fully up to the average. It would appear from this that many of the lumbermen must have attempted to take advantage of the decision to make a curtailment and prepared to have a large supply, to reap the fuller advantage from the comyarative scarcity, and thus forced others into preparing to make a large cut.

THE value of the produce of the forest exported from Canada during the month of September was $3,567,503, of which $3.252,252 was the produce of Canada. The total value of the the goods exported during the month was $9,-451,130.

THE extensive saw mill including shingle mill, etc., belonging to Mr. Roy, at Emileville, Que., was totally destroyed by fire on Nov. 5th. The loss is a public one, as besides the loss of the saw mill, the dam has been temporarily rendered useless and stopped the flour mills and other machinery on that section of the Black river. The loss to the owners runs well up into the thousands. Origin of the fire not known.

THE London *Timber Trades Journal* of Oct. 24th, says:—We understand that Messrs. Bryant, Powis & Bryant have purchased the whole of the Chaudiere spruce, this season's cutting. These goods are pretty well known to London buyers, through the medium of the said firm, as the Breaky spruce, several large cargoes coming in the early part of the present year to their account. The mills on the Chaudiere River near its juncture with the St. Lawrence, opposite Quebec, have greatly extended their operations the last ten years.

## WOOD-WORKING PATENTS.

The following list of patents relating to the wood-working interests, granted by the United States Patent Office, October 27th, 1885, is specially reported by Franklyn H. Hough, solicitor of American and Foreign patents, 925 F. Street, N. W., Washington, D. C.

328,966.—Boring machine—L. C. McKnight & H. C. Knowlton, Gardener, Mass.

329,381.—Lathe—R. C. Fay, Hopedale, Mass.

329,105.—Lathe, automatic—H. Voigt, Wurburg, Germany.

328,954.—Sawing machine—D. M. Maxon, Bay City, Mich.

329,002.— Sawing machine, portable — E. Beghtel, Huntington, Pa.

PATENTS ISSUED NOV. 3.

329,704.—Logs on wagons, device for loading —J. T. Bond, Little Lot. Tenn.

329,669.— Lumber drier — A. S. Nichols, Chicago, Ill.

329,823,—Planing and matching machine—W. M. Dwight, Detroit, Mich.

329,531.—Saw, drag—A. P. Boston, Eureka, Tex.

320,554.—Sawing machine, tree and log—W. E. Hill, Kalamazoo, Mich.

## A NEW BAND SAW.

THE Wm. Hamilton Manufacturing Company will, in a few days, have completed a new style of band saw, which, it is altogether likely, will revolutionize the lumber cutting in large Canaian mills.

Milne Bros., two Scotchmen, from whose designs the company are manufacturing the new saw, are now at the company's foundery personally superintending the construction of the machine. The ordinary band saws are an old invention, they having been in extensive use in England and France many years ago and in the United States for the last five years. But over the ordinary band saw the one now being made by the Hamilton Company possesses an overwhelming advantantage. In the ordinary saw the carriage is tilted back at every cut. This effects a great loss of time and the backward action scarifies one side of the board. The way this band saw works is this: The log comes up the gang way, is rolled along the skid to one of *three* carriages. These carriages are detached, and each one holds a log, dogged at the end. The carriage passes along and the saw passes through the the log. But while its successor is going through the same process the log on number one carriage is switched off to a set of back carriages and by the time number three carriage is approaching the saw number one is again ready. And this is the great advantage. It is the invention of Milne Bros. A continuous cutting is effected, the boards are clean and not the least scarified, and lastly there is an economy effected in the band saws themselves for one of these will last just as long while cutting through a log as it will by running idly on the pulleys. The carriages may be all joined so that long timber may be cut.

The pulleys on which the band saw runs are five feet in diameter and five inches thick. They are faced with birch and are re-faced with rubber. These revolve one directly above the other. One pulley sits under the floor, while the other, supported by a heavy iron column, thirty luches square at the base and fifteen inches square at the apex. On these pulleys the band saw runs like a common leather belt, the top pulley being adjustable, so as to give tension or slacken the tightness. The size of cut is also under the easy control of the sawyer, who, by touching a lever, can set the saw for cutting thin or thick boards as the case may require.

In regard to the quality of workmanship which has been done by the Hamilton Company Mr. D. F. Milne, who is a canny Scotchman, and one from whom no one would expect to hear overdue praise, said, "It's as guid as I've seen done in America." This is the first band saw that has been made in Canada.

As the timber supply is now rapidly on the decrease, the question of economy is much more closely looked into than in former times. The band saw has, in this respect, an unquestionable advantage over circulars. The latter takes a cut of about a quarter of an inch, while the former, even when widely set, takes a cut of less than an eighth of an inch. It will be seen, then, that a saving of about 20 per cent. is made.

## THE SAFE SIDE.

The natural and commendable desire to be on the safe side in making a calculation may be, and often is carried to an extreme which leads into a greater error than that which it is sought to avoid. A man is going to put in an engine; he has often heard and read of the wastefulness of too small a motor, and so to be on the safe side he orders an engine is correctly proproportioned for about four times the load which it will be run under, reasoning that a big horse can drag a little load, but a little horse cannot drag a big load. There is this difference between the horse and the engine, that while the big horse might not cost any more to buy or to keep, both the selling price and the cost of running an engine increases with its size, owing not only to the increasd friction of the larger machine, but to the fact that in order to keep it from exerting its greater power it must be run with low steam, a high grade of expansion, and at a very low speed. The owner finds, in consequence, that he has paid a number of hundred dollars more than he needed to for a machine which is less economical than the smaller and cheaper would have been, in order to be on the safe side.

It is quite possible, though not so frequent in occurrence, that the boiler power may be too great as it is too little, and as for the boiler material the grovernment authorities are obliged, in the interest of safty, to restrict the fire sheets to a given thickness.

Many superintendents and managers will, to be on the safe side, fit their boiler room up with all manner of patented traps and get it where it will almost run itself, or so that "anybody can run it," and then to be on the safe side of the ledger they put any "thing" to run it. Any "thing" depends upon the safety automatic machinery to look out for everything—he does not even look after the machinery itself, and when it slips up at some critical moment with more or less damage who is to blame? Any "thing," the automatic safety appliance, or the man who substituted it for brains, to be on the safe side.—*Boston Journal of Commerce.*

## THE ECONOMY OF FUEL.

D.K. Clark in his work upon the economy of fuel says, "that only two methods present themselves, by which the supply of air and the wants of the furnace can be made to correspond—either both must be made constant and regular or the fluctuations of one must be made to coincide with those of the other," and he proposes to achieve the disideratum sought by admitting an increased supply of air at the periods of coaling by throwing open a sliding valve in the face of the door which immediately commences closing slowly and automatically, and affords a greatly diminished supply of air to the furnace in harmony with the greatly diminished requirements of the fuel. The area vrlve, and the period of time throughout which the act of closing is to be prolonged being adjusted according to the nature of the coal and the average guantity supplied at one time. The outer furnace should be double and the air should pass into the furnace through a series of perforations in the inner plate.

## TIMBER AND LUMBER IN BRITAIN.

The imports of wood by Great Britain and Ireland during September last, says the *Monetary Times*, were nearly 20 per cent. greater than in September of 1884, but taking the calendar year thus far there is a decrease in imports. The quantity of hewn timber which entered the port of the United Kingdom during the nine months ended with September last was 1,521,146 loads, that of sawn 3,122,273 loads, making in all, 4,643,418 loads. The quantities imported by Great Britain and Ireland during the like period of the previous year were very nearly the same, there is not two per cent. difference in the aggregate. Nine months, 1884, the figures are: hewn, 1,571,416 loads; sawn, 3,143,810 loads; making a total of 4,714,226, being some 70,000 loads more than this year. The *Timber Trades Jounal* tabulates the imports at 118 ports, being 74 in England and Wales, 26 in Scotland and 18 in Ireland. First comes London, which gets a fourth of all the wood that comes in. That port has this year had 22,000 loads of timber less, and 130,000 loads of lumber less than last. Liverpool, while showing a lessened import of sawn (289,000 against 325,000), received considerable more hewn. The figures of Hull are much the same as the previous year. Cardiff, which is the great importer of hewn timber, shows, this year, a decreased import of 41,000 loads, equal to 20 per cent. Leading Irish and Scotch ports, with the single exception of Grangemouth, have taken less this year than last. We append comparisons:—

| | *Nine Mos.* 1885. *Loads.* | *Nine Mos.* 1884. *Loads.* |
|---|---|---|
| London | 972,156 | 1,064,904 |
| Liverpool | 433,356 | 461,955 |
| Hull | 335,453 | 335,447 |
| Cardiff | 275,465 | 325,775 |
| Hartlepool, West | 226,598 | 247,296 |
| Grimsby | 233,134 | 167,421 |
| Newport, Mon | 134,975 | 143,503 |
| Bristol | 100,578 | 104,992 |
| Grangemouth | 145,950 | 103,745 |
| Sunderland | 107,324 | 101,836 |
| Newcastle | 105,208 | 96,059 |
| Gloucester | 102,062 | 73,568 |
| Greenock | 85,579 | 78,114 |
| Leith | 66,856 | 60,092 |
| Glasgow | 45,890 | 53,260 |
| Dundee | 41,395 | 48,663 |
| Dublin | 65,793 | 67,672 |
| Belfast | 58,017 | 60,517 |

## THE HOOK OF A CHAIN.

Here is another place where the working mechanic, in trying to forge out a hook for a chain, weakens the material, distorts the fiber, and abuses the strength of the iron by the strains left within the hook when finished. It is the only portion of a chain that must endure the breaking, bending, and stretching tendency of a load at an off-hand disadvantage; every strain must be taken to one side to allow the chain to be unhooked from the other, and has every tendency to disturb the curative of that graceful reversing curve that forms the back of the hook of a chain. If a hook could be so proportioned that even an expert would find it difficult to decide where it would break first, it might answer for many purposes, but there are places where this theoretical hook would be treacherous. A flatened hook is the stiffest, and where it is left the thinnest in the back edge, gives the most strength for a given amount of material it breaks without warning. What a workman needs, where life is in danger, is a hook that will give some indication of being overloaded before it breaks. It is a desirable feature in every structure to have some of the working parts so constructed as to give the workmen notice of an impending break down. The foundrymen, with their glowing material, would prefer to see the opening in the hook of their

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A. R. WILLIAMS, . . . TORONTO.


chain spread out a little, far enough to attract attention, than to create a disturbance that would be detrimental to their own welfare by the break of a chain.—*Boston Journal of Commerce.*

### LIVERPOOL.

The *Timber Trades Journal* of Oct. 31st says;—There is still no improvement in the state of business in Lancashire and Yorkshire; the anticipated liveliness which was expected to be shown after the termination of the strike in the Oldham district has so far not shown it, self.

We are now so far advanced in the year that the probability of any better time being experienced in 1885 becomes every day more remote for when the excitement of the municipal and Parliamentary elections is over, which will as usual greatly interrupt business, we shall then be closely approaching the end of the year, when, of course, the consumption is limited to what we may term hand to mouth dealings.

The arrival of timber vessels continues to be of moderate proportions only, though there is an accumulation of vessels lying in the river at present, which have been unable to dock owing to the recent gales and the heavy sea running in the river. These comprise one cargo of pitch pine, one of Quebec goods, and two of timber from Quebec, whilst the deal cargoes are represented by two cargoes of St. John N. B., eight cargoes of Lower Port, and one cargo of Baltic deals, so that when the gale subsides, of which there is every appearance now, these vessels will get into dock; and even if there be no great amount of delivery going on the discharge of this number of of vessels will at any rate give some show of animation to the dock, which at present is lacking.

The announcement of a reduction in railway rates on timber from Liverpool to Manchester, and the immediate district, will be a source of gratification to the dealers and consumers in that neighborhood.

The London and North-Western, the Lancashire and Yorkshire, and the Cheshire Lines Committee have agreed on and after the 2nd November the station to station rate for timber and deals between Liverpool and Birkenhead to Manchester shall be reduced from 7s. 7d. per ton to 6s. 8d. per ton.

How far the various railway companies have been influenced by the proposed Manchester Ship Canal cannot be said, but the general opinion is, that had it not been for the agitation se up by the promoters of this scheme, these concessions would not have been made.

LIVERPOOL TIMBER SALES.

On Friday last Messrs. Farnworth & Jardine sold by auction, on the quay of the Canada Dock, about 50,000 cubic feet of St. John, N.B., birch, &c, timber, which sold well considering the heavy imports of this wood with the market has been laden recently.

Messrs. A. F. & D. Mackay's sale on Thursday last attracted a moderate attendance of buyers, and taken all sound poices obtained for the goods sold were quite as good as could have been anticipated. The small parcel of spruce deals ex nnie brought higher prices than have ruled hitherto, especially for 11 in., which are comparatively scarce. As the Fanny Atkinson, from Miramichi, had not arrived, the pine timber mentioned in the catalogue was withdrawn. likewise the birch and spruce lgs, with the exception of two lots of the former. For the stored woods per Camperdown and Kate Cann there was no bid.

### GLASGOW.

The *Timber Trades Journal* of Oct. 31st says:—The public sales to note here within the past week have been confined to those of mahogany and walnut.

Parcels of deals continue to arrive pretty freely per steam liners from Quebec and Montreal, the quantity for the week amounting to 45,363 pieces. Other imports to Glascow during the past week have been a cargo of birch timber from Guysborough, N. S., and various parcels of staves, &c., per steamers from Now York. Since the beginning of this year there has been a total import of 628,730 pieces of Staies staves to Clyde, which is about the same quantity as at corresponding date last year

At Greenock the imports for the week comprise two cargoes of Rangoon teak, besides of Quebec timber. The year's import of teak, to date, amounts to 12 cargoes aggregate register tonnage 9 255 tons, showing an increase as compared with last year.

At the Dean of Guild Court several linings have been taken off lately, annd house-builders generally appear to be fairly well employed at present; we notice too, from report of heritable property sales on 28th inst., that three sales were effected at an advance on the upset prices.

On 27th. inst., at Queen's Dock, Glasgow, Messrs. Farnworth & Jardine held an auction sale of mahogany and walnnt. The mahogany consisted of a cargo from Santo Ana just landed, and comprised 404 logs, 132,000 sale feet. Prices obtaind were from 2¾d., to 10d., averaging 4½d. per foot; two lots went at 2¾d.; 3 logs cedar brought 2½d. and 3d. per foot, and 9 log ends mahogany (large squares) 6d. per foot, 2 log ends 3d. per foot. The entire cargo was sold.


### Catarrh—A New Treatment.

Perhaps the most extraordinary that success has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

### Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world Price 25 cents a bottle.

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WHOLESOMENESS,
And STRENGTH
**It stands without a Rival!**
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1yL22

### ROOFS OF PAPER.

A roof superior to that of slate, because of its lightness and other advantages, is now made of any fibrous pulp. From this material tiles of any shape desired are formed by pressure under machinery, or by any other method which may suggest itself. Pressed into the designs wished for, the pulp tiles are partially dried, previous to being subjected to waterproof solution. Thoroughly impregnated with the preparation to resist moisture, they are baked to harden them in the waterproof mixture. After the baking the tiles are treated to a mixture imparting enamelled surface; to this is added a coating of sand, whereby the pulp is rendered proof against the action of heat or flame. By the use of different colored sands a variety of tints may be imparted to the tiles, which, after the application of the enamelling mixture and sand are baked a second time, after which they are ready for use.

Besides the inherent lightness of pulp tiles, which obviates the necessity of a heavy frame to support a weighty roof, the pulp tile, being tough and not brittle like slate, is far less liable to be broken from blows, stones thrown upon them or human footsteps. Again slate tiles cannot be laid compactly together on a roof on account of their brittleness, which prevents their being drawn tightly together by nails. Through the fibrous pulp nails may be driven as close home as in shingles, thereby binding them closely to the bed and together without any possibility of laternal movement, or be blown away in a high wind, as slate loosely fastened on roofs so frequently are. Nails penetrate the pulp tiles more easily than shingles, and they lie closer together, being more elastic than wood. Another great recommendation is the cheapness of the pulp tiles as compared with slate in every way—orignal cost and expense of transportation—the one being heavy and liable to breakage, the other light and of an elasticity rendering fracture exceedingly difficult. Pulp tiles may be used for other than roofing purposes; they can be adapted to the decoration of interior walls or for mantels. Capable of being ornamented in any style desired, the pulp tiles can be made to take the place of the heavier and far more expensive tiling now in general use. For employment in interiors of houses, the lightness is again a great advantage. When designed for decorative purposes the sand is omitted, then the enamel is of an exceedingly lustrous surface, comparing favorably in appearance with the ornamental tiles, notwithstanding their great weight, cost and liability to damage, if not entire destruction —*Ex.*

### THE HORSE POWER OF ENGINES.

The manufacturers of the smaller primemovers such as gas, hot-air and vapor engines, wind mills and water motors, do not hesitate, as a class, to over-rate the performance of their products in the matter of horse-power. There are exceptions, but they are in the small minority, and even manufacturers of standard primemovers of this class fail in this respect, probably forced to the over-rating course by the competition of the many new concerns which are continually bringing their new—often undeveloped—designs into the market. This over rating of these smaller prime-movers is a constant source of annoyance, gives rise to much difficulty, and is the main cause of any unpopularty which attaches to them as a class. The rating of horse power given is usually the theoretical maxium performance, no allowance for waste of heat and power, for loss by friction, and the like being considered. The purchaser, however, wants to know the daily average effective actual horse-power, as available from the driving shaft of the motor. This is what he must base his calculations on, and this horse-power is all that is of use to him, as far as the motor is concerned. The manufacturers of steam-engines, and of all the motors of large horse-power, had long realized the need of correct statements on this head, and live up to them. But with few exceptions, the manufacturers of the above mentioned motors of small power have not yet awakened to the necessity of accurate representation of the actual horse-power developed. This information will be of value to those engineers, who have not had experience with the small motors, and who are suddenly called upon to provide them. We should certainly advise them as a guiding rule, in procuring this class of motor, to order a rated horse-power, twice as great as that actually needed, for though in that case they may possibly in a few exceptional instances, secure a motor of slightly greater horse-power than they need or have figured on, as a general thing, the actual horse-power developed will be just what they want, and by no means too large. This, at least, has been our experience in a great number of instances, and accords with that of a number of engineers of our acquaintance.—*The Engineer.*

### USE WHAT YOU HAVE.

Every little while the columns of the daily press blazon forth the birth of a "new and valuable invention" which is to save from 20 to 100 per cent of all the fuel which is now consumed, and a little stir is excited by a sniff of bisulphide of carbon, would be money makers are heated to the boiling point over somebody or others new furnace, and speculation is estimated by the introduction of a little alcohol into steam boilers for purposes of economy. Now while so much time and thought and money is expended in endeavoring to effect a saving of fuel by some hitherto unknown means by the introduction of some new principle, or by the use of somebody's patent, would it not be well for those who are anxious to effect a saving in their fuel bill to consider how well they are doing with what is already at their hand. Do you know how nearly it is possible to approach to the actual value of coal in heat units transferred to water or steam in an ordinary boiler over a good plain, honest everyday setting; and do you know how nearly you are approaching that limit of possibility in everyday practice? Are you sure that your boilers are built and set with the proper proportion of grate and heating surface, and that the rate of combustion which you practice is that which will secure the most efficient results? It is a favorite statement of these inventors, or boomers, that only ten per cent of the value of coal is utilized, but this statement is made without any regard to the second law of thermodynamics, and oft the fact that a heat engine can only work through a limited range of temperature. Would it not be better to settle down in a rational way and undertake to get the moist that can be got out of the material at our hands than to be continually running a wild goose chase after the unattainable, and being gulled by hairbrained schemes which look perfectly feasible only to those who know nothing of physical laws or of the principles of steam engineering?—*Boston Journal of Commerce.*

### FIRE.

An idea, as to the origin of fires in saw mills, planing mills and other wood-working establishments, that seems to be general in insurance circles, is, to say the least of it, odd, if not wholly erroneous as far as its application to small mills in the country is concerned. That it is quite difficult to secure insurance on mill property lying idle in some remote district is well known, insurance companies assuming that because it is out of use it is in greater danger from fire than when in operatron, therefore the risk is greater. The logic of their position has never yet clearly presented itself to us.

That a saw mill in the back woods, unused, unguarded, away from the thoroughfares of the country, no habitation of man within possibly a mile, save perhaps the isolated shanty of the sawyer, is more liable to be burned than one in daily use, is certainly hard to understand.

Its location in most cases is such that it seldom becomes the lodging place of tramps, and an occasional hunter may seek shelter beneath its lonely roof. Who else or save some enemy on mischief bent would ever find it?

"Ah, but," says the insurance man, "it is likely to be fired from spontaneous combustion in some old waste or refuse matter." Indeed, let us ask, who ever saw an accumulation of such matter around an abandoned saw mill property in quantities sufficient to fire it from such causes. Rather we would say the amount of waste grease, &c., is more conspicuous beeause of its scarcity than otherwise, as it is an undisputed fact that the average saw mill man is poorly provided with such material.

The claims are not without foundation, in the case of an abandoned woolen mill, or similar enterprise, because of the fact that the very nature of the material worked (when in operation), is of such character that every crack, crevice, or hole in the building, and every journal box, and hanger, is saturated, filled full of it and liable to kindle at any moment. The building is tight, dust, instead of being blown away as in an open saw mill building, settles down over all this combustible matter, heat is created, and in an hour least expected the flame of destruction starts on its ruinous way.

Let us for a moment contemplate the dangers incident to the country mill in operation being fired by slabs, and if a planing mill is in use the shavings are also used. Sparks are treacherous things and liable to settle down under the roof on the framing timber, are easily blown under some loose dry board of the roof, or steal unnoticed into some lumber pile that the warm winds of summer has fanned, until it is as dry as was the pathway of the children of Isreal when the waters were parted by the hand of God that they might cross to the other side. Or some careless fireman may leave the "smouldering embers on the hearth," all of which could be easily blown into a blaze. A thousand ways indeed to fire a country mill by accident, even when the employers are at hand, and when once thoroughly kindled all the limited powers at hand cannot arrest the fire until it has licked up, with its forked tongues of flame, all that is within its reach. It may be that some insurance man may be able to controvert these facts and enlighten the public as to the basis of their claims, and we are quite certain their arguments will be received with favorable consideration.—*Lumber Trade Journal.*

### RUNNING ENGINES WITH WATER-WHEELS.

Whenever more power is needed, either constantly or at seasons of low water, or when variable work is being done, a steam engine may be attached to the line shaft which leads from the water-wheel by means of its main-band passing over a pulley on side line shaft (situated as near the wheel as practicable), said pulley to have such diameter as will permit both the engine and the water-wheel to make each its own regular speed. The effect of this is as follows: When the supply of water is ample for the work, the governor of the engine will shut off its supply of steam, or nearly so, and the steam retained in the boiler, little fuel being consumed. But when the supply of water fails, or the work is greater, for longer or shorter intervals of time the speed of the water-wheel is decreased, then this governor instantly opens the steam upon the engine, which in turn supplies just the amount of power needed to supplement and maintain the requisite speed of the line-shaft. so that, as long as the power from the water-wheel is sufficient to overcome its own friction and that of the line shafting, so long will its own water be utilized, even when it would be insufficient alone to accomplish any work at all beyond overcoming said friction.—*Saw Mill Gazette.*

### EFFECTS OF A BOOM.

There are those who conclude that a revival of business and speculation to the extent of an actual boom will tend to reduce the lumber demand, rather than stimulate it. They base their conclusion on the proposition that active trade and speculation will employ the capital that in dull times is forced into real estate investment and business enterprises. Hence, they say, as soon as the boom is under full headway, building will measurably cease. This may be so, to some extent, in the cities. But when trade, manufacturing and speculation are active and profitable, the farming class obtain good prices for their products, and naturally buy lumber and make improvements. This condition would be the reverse of that which has prevailed for the past two or three years. So we see that the loss of demand in the cities would be made up in the country. Besides times of acitve business and speculation, coupled with the prosperty of the farmers, induces railroad construction and car building. This, in case of a boom to come, would be another additional cause of demand. It can be said still further, that in flush times with the railroads, the merchants and the manufacturers, the laborers in cities are well employed. When the middle classes and the laborers are thrifty, they build homes for themselves. The large cities in this country have all reached that stage of development when nothing can stop their suburban growth. The overflowing thousands must have houses, largely outside the city limits. For this reason metropolitan populations will continue to build and do it the more when times are good and earning constant There may be less heavy building for investment during a boom, but a large aggregate, nevertheless, for the reasons stated.—*Northwestern Lumberman.*

### WHAT CONSTITUTES A MANUFACTURER.

In a recent decision in the case of the *Evening Journal* Association against the State Board of Assessors, the Supreme Court of New Jersey held that a company printing and publishing a newspaper is not a manufacturer. The decision is based upon the lexicographer's defiinition of "manufacture" as "the process of making anything by art or reducing materials into a form fit for use by the hand or by machinery;" upon the ordinary and general use of the word "manufacture;" and upon the view that a manufacturer is one who by his skill and labor adds to the intrisic value of the materials used, which gives them a merchantable value in the market as merchandise. "A newspaper," the judges say, "has intrinsically no value above that of the unprinted sheet, but has less value intrinsically as a mere article of merchandise. Its value to its subscribers arises in the information it contains, and its profit to the publisher is derived in a great measure from the advertising patronage it obtains by reason of the circulation of the paper induced by the enterprise and ability by which it is conducted." A person carrying on the business of bookbinding and making blank books is a manufacturer; and a gas company is held to be a manufacturing company, because illuminating gas is an artificial and not a natural product, produced by the modification of natural substances by art and industry. An aqueduct or a mining company is not a manufacturer; nor is the painter or the sculptor, although he employs manual labor. In the case of the painter and the sculptor the opinion of the judges is evidently based upon the popular definition of the word manufacturer. To take such definition in the construction of legislative acts is, as they say, the cardinal rule.

### A MARKET FOR LUMBER.

The "staked plain" of northwestern Texas is a treeless area once considered a veritable Sahara for barenness, says the *Northwestern Lumberman.* The vast stretch of territory has no timber but the mesquite, a scraggy bush, that seldom grows to much size. There is occasionally a spring that affords necessary water for stock, and water is easily obtained by sinking wells. The stock raisers who have a monopolized the staked plain as grazing ground have always contended that it was unfitted for agriculture. But latterly this has been disproved, and settlement along the lines of railroad has been rapid. Midland county, in the heart of the plains, is thirty miles square, and is described by Wisconsin man as a beautifully rolling prairie, with a soil from one to fifty feet deep, with a few living springs scattered here and there. The fact that there is land enough in the panhandle of Texas to make a large state, all susceptible of farming, but devoid of timber, opens out possibilities for the lumber merchant that are fairly bewildering. Texas, as a whole, is destined to afford a vast lumber market in process of time.

WORK has been resumed on the Regina and Long Lake Railway. The grading is finished to Long Lake and track laying is being pushed forward at the rate of a mile a day. A working staff of seventy men and twenty teams is employed at present, and it is expected that the road to Long Lake will be completed within ten days.

# Chips.

THE country east and south of Ashland, Wis., was recently covered with snow for several days.

THOMSON & BAKER'S mill at Gravenhurst, cut during the season 3,000,000 feet of lumber, 2,500,000 shingles, and 1,000,000 lath.

LETTERS patent have been issued to N. Boyd, J. D. Carscadden, Jno. Peck, G. R. Crowe and J. J. Burrows as The Selkirk Lumber Company.

AT Shoal Lake on the M. and N. W. R'y building lots are being rapidly disposed of, and large quantities of lumber are being received for building purposes.

ARCHIE BROWN'S CAMP, on Chubb creek, 13 miles from Otsego lake, Mich., was destroyed by fire recently. Many of the men lost everything by the few clothes on their backs.

FOREST fires lately did considerable damage in Bayfield county and along the lines of the Wisconsin Central and Milwaukee, Lake Shore and Western railroads, in the Lake Superior region.

MR. JAS. CROSSEN of Cobourg, is making a large addition to his carpenter and cabinet shop, and he will put in six or seven new machines. This is rendered necessary for the turning out of sleeping cars.

ACCORDING to a French scientist, the world's annual output of paper is 1,500,000 tons, worth $200,000,000, of which the note paper represents a bulk of 120,000 tons and a value of $32,000,000. The steel pen bill is placed at $4,000,000 a year.

HENRY GOSLIN, while rolling a log on the carriage in O'Callahan's mill, at Norway, Mich., let the hand spike he was using strike the circular saw. The bar struck him on the nose, breaking it, as well as the cheek bone, and otherwise injuring him about the head.

THE pine in the Lake of the Woods region is harder than that further south. On this account the manufacturers at Rat Portage brought in 10,000,000 feet of Minnesota logs this season, so as to have soft lumber enough to supply special demands It is said that next season one of the mill concerns at that point will build a sash, blind and door factory. There will be more logs cut in the district the coming winter than last, but not as many as in 1883-84.

THE Chatham, N. B., *World* contains a description of the pulp and paper mill to be erected in that town. The mill "will be the largest in Canada," it is declared. The buildings of which there are to be three, will form the letter H, the dimensions being 254x49 feet, 268x69 ft., and 84x114 feet, the first two to be two stories and the latter three. They will be of brick with foundations of freestone masonry. The mill is to be completed next summer. Over two million brick will be required for it, of which nearly one-third have been manufactured in Miramichi.

THE British colonies include the richest and largest forests in the world, extending over millions of square acres. In India alone about 60,000 square miles are afforested, and the forests of Canada, Australia, New Zealand, and Cape Colony are second to none in size and the variety and value of their productions. But there is no knowledge of forestry and no school of the art in France and Germany. Consequently the acreage under timber there and in Great Britain is small and constantly decreasing. Of the 20,000,000 square acres of Scotland, only about 700,000 to 800,000 acres are woodland.

### THE SANDAL WOOD OF JAPAN.

A correspondent of the Chicago *Times* says that one may see, in passing the shops of Tokio, cords of this wood cut into small blocks. This, one learns, is nothing short of shoe timber. These cords of wood will speedily be converted into shoes of various sizes, at prices ranging all the way from four to twenty cents. One feels quite exalted in a pair of twenty cent shoes. The wood is called kiri, and is very light. The clogs are still further lightened by hollowing out the centre. So, in point of fact, there is little truth in calling the shoes heavy, although they appear so to the inexperienced observer. It must be admitted though that they are unreasonably clumsy. Sometimes the shoes worn by the ladies are lacquered, and are fastened by a velvet band passing from either side over the lower part of the instep, and between the first and second toes. With this same kind of wood bureaus are made, provided with strong iron handles, and the whole box is adjustable in horizontal sections, one piled above another. Owing to the lightness of the wood these boxes may be filled with clothing and carried off by coolies in cases of fires, which so often vex Tokio.

### TO DEADEN SOUND.

In order to deaden the sound of a circular saw, says the *Western Manufactnrer*, the frame should be fixed on a brick or stone bed, and the shaft or bearings kept clear of the wall, so that the sound is not carried by contact into the wall. If the wall is not built we recommend a hollow wall with iron ties, and the space filled in with sawdust, no opening of any kind being made. If the wall is built, and of single brick, line it with another single brick wall, inserting sawdust between, or a layer of hair felt. If the wall is of wood quartering, lath and plaster it on both sides, and fill it between with sawdust, or coat over the studding with hair felt, and lath and plaster over the face of it. In fixing the quartering, if attached to wood at the top or bottom, bed the attaching points, or parts in hair felt. Sound will travel with air, therefore exclude all connection of air. Sound will travel though glass, wood, or stone, except it be of great thickness, therefore intercept it with sawdust or hair felt, which are non-conductors. If you have a circular saw on one side of a wall, and you want a point of silence on the other, you must stop all direct communication, and and cause the sound laden air to travel in long and circuitous routes, and give out its vibrations before it reaches that point.


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*—AT THE—*

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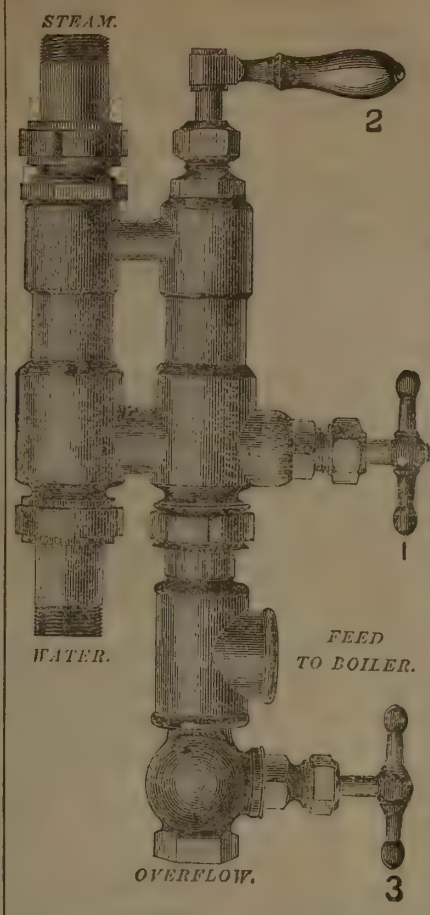
***PETERBOROUGH.***

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Agents Wanted Everywhere. 13L6

# Market Reports.

## MONTREAL.

*From Our Own Correspondent.*

Nov. 9.—The bad weather continues to be much against business, but still the amount of business done so far in 1885 is considerably in excess of last year up to the same date. At the present moment business is light and prospects continue poor for the winter. Prices are about the same as last quoted :—

| | |
|---|---|
| Pine, 1st quality, ₱ M | $35 00@40 00 |
| P ne, 2nd " ₱ M | 25 00@30 00 |
| Pine, shipping culls, ₱ M | 14 00@16 00 |
| Pine, 4th quality deals, ₱ M | 10 00@12 00 |
| Pine, mill culls, ₱ M | 7 00@ 9 00 |
| Spruce, ₱ M | 10 00@13 00 |
| Hemlock, ₱ M | 9 00@10 00 |
| Ash, run of log culls out, ₱ M | 20 00@25 00 |
| Bass, " " ₱ M | 12 00@18 00 |
| Oak, ₱ M | 40 00@50 00 |
| Walnut ₱ M | 60 00 100 00 |
| Cherry, ₱ M | 60 00@80 00 |
| Butternut, ₱ M | 25 00@35 00 |
| Birch, ₱ M | 20 00@22 00 |
| Hard Maple, ₱ M | 25 00@30 05 |
| Lath, ₱ M | 1 60@ 1 70 |
| Shingles, 1st, ₱ M | 3 00@ 0 00 |
| Shingles, 2nd, ₱ M | 2 50@ 0 00 |

SHIPPING.

The shipping for South America is now about closed, the New Brunswick being the last vessel for that destination. The West Cumberland has been taken up for London, for deals at 55s. : the Ashden for the same port at 57s. 6d. ; the Grassbrook at 50s. and the Camden at 60s. for Liverpool. The Dominion Line and other ocean steamers are taking deals at 47s. 6d. The following are the shipments as recorded at the Custom House since our last : SS Saltburn, for London, 19,609 deals and 1,608 ends : BK New Brunswick, for Buenos Ayres, 450,812 feet lumber ; SS Escolona, for Glasgow, 1,975 deals ; Ship Polynesian, for Buenos Ayres, 1,048,001 feet lumber ; SS Minerva, for London, 20,272 deals and ends ; SS Montreal, for Liverpool, 869 deals, 1,427 boards and 12,-746 deals and boards ; SS Naurahan, for Antwerp, 20,700 boards ; SS Newcastle City, for Hartlepool, 11,115 deals and 877 ends ; SS Colma for Glasgow, 5,344 deals ; SS Lake Champlain, for Liverpool, 10,094 deals and 8,-401 boards ; SS Dominion, for Bristol,861 deals ; SS Scotland, for London, 6,281 deals, 2,048 battens and 7,497 boards ; SS Pensher, for London, 23,641 deals, 2,340 ends and 2,643 battens ; BK Pategonia, for Buenos Ayres, 1,-025,092 feet lumber ; BK Aspoloque, for Valpariso, 402,509 feet lumber ; SS Sarnia, for Liverpool, 8,654 boards and 4,892 deals ; SS Winnipeg, for Liverpool, 13,313 deals and 451 boards.

The brig Lodson has been chartered to load grain here for Queenstown f.o. at 4s., by Messrs. Anderson, McKenzie & Co. This is the first and sailing vessel which has been chartered for the same purpose during the year from this port.

CORDWOOD.

The demand has considerably fallen off since the date of last report, prices, however, remain steady, stocks are very full. Prices are ex wharf as follows :—

| | |
|---|---|
| Long Maple | $ 5 50 |
| Long Birch | 5 00 |
| Long Beech | 4 00 |
| Tamarack | 3 50 |

## TORONTO.

*From Our Own Correspondent.*

NNV. 9.—The volume of trade for the past two weeks have been fully up to high water mark. Yet to say that the yard men have done their fair quota of said trade would not be quite correct. The fact is wholesale dealers are fully dividing the business at present by retailing from the cars or from the piling grounds in the railroad yards, and some definite understanding, with mutual concessions, will have to be come to before any change will be made mutually beneficial. The wholesale men charge the retailers with want of fair dealing, by going up to the mills and purchasing stocks, thereby cutting on their legitimate trade. This is undoubtedly true as applied to fully one-half the retail men in business here, and it is doubtful if they do any better by so doing, as most kinds of lumber can usually be purchased fully as cheap in this market. However, this is a question for the retail men to decide for themselves, and they cannot do so a day too soon if they intend to retain any considerable portion of their past trade. I speak advisedly when I say that the middlemen will be prepared to meet them fully half way. A settlement of the present state of the trade will shortly have to be made.

The railroad yards are full to repletion, all available space is taken up, so that instead of computing the stock now piled here and standing on cars it might not be amiss to quote it by the acre instead of by the M. At the mills, however, stocks were never smaller and should the present winter prove to be an open one there will be a shortage of many kinds and grades of lumber.

Shipments from the docks are rapidly drawing to a close, and I will endeavor to give you a statement in time for your issue of December 1st of the total quantity shipped from docks here, and as near as possible to make it, of the total quantity sold on our local market.

Present scale of prices at the yards remain as before, wholesale prices to consumers about $1 per M less, which will fully account for the large trade taken from the retail yards to track sidings.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1¼ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ½ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₱ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## OTTAWA.

*From Our Own Correspondent.*

Nov. 9.—The outlook for the lumber trade in this section during the coming winter is fairly good, although it is now evident that operations will be somewhat curtailed, especially in the square timber line. It may be said with truth that sawed lumber is crowding the square make out of the field of competition, and lumbermen, realizing this by slow sales and failing prices, are beginning to drop into log manufacture as a readier means of getting the quickest and safest return from the capital invested. The opening of the Canadian Pacific Railway has developed new fields for the lumbering enterprise, and regions, hitherto unreachable, have become very stirring in the trade. Before the building of the railway the Ottawa and its tributaries were the only avenues for reaching the lumber wealth, but since the building of the great transcontinental line the Nipissing country has opened out a field very rich in its promise. With the Nipissing development may be also mentioned the streams that lie adjacent, the Sturgeon river and the Whanapitae, two very important streams whose timber wealth was a few short years ago unknown. The pioneers in the lumber trade on the Whanapitae are Messrs Timmins & Gorman, of Mattawa, who cut a very large raft of square timber close to the railway track, which timber they shipped by rail and had in the market early in June, selling for a good price. Their succ-ss at the first venture was such that this season they have gone in on a larger scale of operation and will put in the market two rafts this coming spring. Their limit being situate close to the line of railway ensures them a safe means of placing their manufacture in the market, and are consequently independent of low water, which often places lumbermen's operations in jeopardy, and is frequently attended with delay and loss when so much depends on spring freshets. The railway company in order to give lumbermen every chance of benefiting by the line, construct such works as facilitate the loading of the timber wherever timber is to be shipped, and this in a measure fosters the growing industry of the new region. The same may be also said of the lumber on the Sturgeon river. At this point on the line the company have placed a side track so that loading of timber can go on without impediment to the traffic on the main line. There is no question but the Canadian Pacific railway in the upper Ottawa region will be the means of developing the almost inexhaustible timber resources of that region. Heretofore the United States market has been looked upon as the lumberman's Mecca for sawn lumber, but within the last few years, and especially last summer, the English market has leaped into the front rank and now holds out prospects the most flattering. The shipments from the Chaudiere lumber mills to the English market this past season have been enormous, and next year the demand is confidently expected will be increased. The Chaudiere manufacturer finding a ready market in the mother country, during the past summer, the different owners of mills have felt the stimulus and are now carrying on heavy log cutting operations in the woods and their mills will be run as long as the weather will permit.

## OSWEGO, N.Y.

*From Our Own Correspondent*

The recent advance in lake and canal freights has checked receipts, and we do not anticipate much more this fall. The assortment is good ; sales have been better since our last report, but prices remain about the same.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1½ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1½, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of Nov. 7th says :—The port list this week shows the smallest number of incoming cargoes in a single week since last May, only 108 vessels having arrived. But a small number of the total have stopped at the sales docks. The flush of the season is over, the excitement of the market gone with the roses and the peaches. In fact, the entire season has had less of excitement than former ones. Such offerings as have been made this week have been taken readily at previously quoted range of prices. Short, green piece stuff is still selling at $9.50 a thousand, and dry brings $10 to $10.25 for fair to good, and $10.50 for choice white pine, running to advantage as to length. Six-inch strips are much rnquired for, and cargoes of inch lumber containing a large proportion of strips sell for strong prices. Cargoes of piece stuff, and inch lumber that is desirable, often sell before arriqal. Daily inquiry for incoming cargoes is made and purchases effected often before vessels sent out to bring the lumber in have gone far out of port. There is no reported change in shingles :—

Quotations on lumber and shingles are as follows :—

| | |
|---|---|
| Dimension, short, green | @$9 50 |
| " long green | 12 00@14 00 |
| No. 2 boards and strips | 10 50@12 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@20 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 1 75@ 2 00 |
| " clear | 2 15 |
| Lath | 1 30@ 1 40 |

AT THE YARDS.

The favorable indications noted last week continue. If there has been any change within the week, it has been for the better. The volume of shipment is slightly on the increase and prices are stronger and a little higher on some sorts. The aggregate of car loads sent out of that portion of twenty-second street district, north of the South Branch, during October, was larger than the aggregate in September. The total in the last named month was 6,150 for October it was 6,649—a gain of 599 car loads The total for August was 5,527. Thus it can be seen that, beginning with August, there has been a steady gain in the volume of shipments. What is still more encouraging is the fact that within the past week or ten days there has been a marked increase of shipments, and the reduced rate to southwestern points will tend to a further increase.

There is a decidedly better feeling in prices. The improvement now openly admitted, even by the almost incorrigible bears, appears to have come to stay.

There is considerable trade between yards in shingles. It is claimed that there has been a late advance of five cents a thousand on standard and extra brands. Standard shingles are selling from $2 20 to $2.40 a thousand. Standard cedars, owing to their scarcity, are worth as much as pine of the same class. No. 1, a low grade shingle that in the summer sold for 50 cents a thousand, brings 75 cents now.

Receipts of lumber, shingles, etc., from Jan. 1st to Nov. 5th as reported from the Lumberman's Exchange :—

RECEIPTS.

| | Lumber. | Shingles. |
|---|---|---|
| 1885 | 41,356,000 | 13,264,000 |
| 1884 | 53,563,000 | 25,696,000 |

FROM JANUARY JAN. 1, 1885, TO NOV. 5, 1885, INCLUSIVE.

RECEIPTS.

| | Lumber. | Shingles. |
|---|---|---|
| 1885 | 1,543,821,000 | 676,121,000 |
| 1884 | 1,676,946,000 | 778,653,000 |
| Decrease | 133,125,000 | 102,532,000 |

LAKE RECEIPTS FROM JAN. 1 TO NOV. 7.

| | |
|---|---|
| Lumber | 1,349,554,000 |
| Shingles | 618,418,000 |
| Lath | 44,963,000 |
| Wood, cords | 26,553 |
| Posts | 3,208,362 |
| Railroad ties | 1,742,657 |
| Slabs, cords | 28,764 |
| Bark, cords | 20,162 |
| Poles | 51,506 |
| Spiles | 2,000 |

STOCK ON HAND OCT. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 638,079,892 | 665,325,194 |
| Shingles | 358,569,200 | 335,262,075 |
| Lath | 62,781,962 | 63,368,268 |
| Pickets | 1,975,565 | 2,157,345 |
| Cedar posts | 575,938 | 458,787 |

EASTERN FREIGHT RATES.

FROM CHICAGO AND COMMON POINTS ON CAR LOAD LOTS OF HARD AND SOFT LUMBER.

IN EFFECT NOV. 1.

| | |
|---|---|
| To New York | 35c. |
| Boston | 40c. |
| Philadelphia | 33c. |
| Baltimore | 32c. |
| Washington | 32c. |
| Albany | 32c. |
| Troy | 32c. |
| Buffalo and Pittsburgh | 20c. |
| Shenectady | 28c. |
| Wheeling | 20c. |
| Suspension Bridge | 20c. |
| Salamanca | 20c. |
| Black Rock | 20c. |
| Dunkirk | 20c. |
| Erie | 20c. |
| Toronto | 20c. |

## LONDON.

The *Timber Trades Journal* of Oct. 31st says :—There was nothing at the "Baltic" this week to indicate that prices were improving for ordinary stock. Special lines of really sound wood excited competition of a limited character, but an utter indifference was displayed on the part of buyers as respects lots having nothing especial attached to them.

There was a bit of a bustle at Messrs. Churchill & Sim's sale when the Montreal pine ex Scotland was put up, and we consider the result decidedly favorable to present stock holders. 3x6, with nothing special in the way of lengths, at £20 15s. a standard, is sufficiently indicative of the strong hold 1st quality has upon the market here. The inch boards ranged from £14 15s. to £17 5s. according to thickness, which was likewise favourably treated.

The spruce by this ship offered at the same time presented a strong contrast, the prices throughout being very indifferent. 3x9 1st at £8 15s., and planks 20s. more, seemed to show that spruce is not in very active request just now. We hoped the recent inquiry for whitewood from the Baltic would have been the precursor to Canadian wood advancing, but the sale values do not point in that direction.

Flooring prices remain much as they were; there is, perhaps, a better inquiry for narrow stuff, stocks of these widths have considerably reduced. The second day's proceedings were marked by somewhat more activity, but certainly no better prices than the day before. Some choice parcels were submitted, of which Sundswall 4th, ex Primula, at £8, went cheap. It is questionable if the figures covered the first cost. Goods of this class have not been done much under £6 f.o.b, this with freight and charges would bring them up to £7 15s., at which price two of the lots were knocked down, so that anyway it would be a close thing. This cargo was in very fair condition, as intimated last week, and realized 5s. better than the parcel ex Stanley, of the EAD mark, also a very good shipment. The damaged portion of the pitch pine boards ex Bellingham, went at wretched prices seemingly, but they were rust-stained and otherwise defective, so that no estimate of their value could be better obtained than that which the market afforded. The other descriptions were cheap but proportionate to the stocks, with which the market is so well supplied.

Outside the saleroom things were a bit firmer, judging from the tone of those representing foreign stocks; the grounds for anticipating an improvement as regards the north of Europe ports were the expected shortage there next year on tho output of 1884 both in Finland and Sweden. The combination of the two is roughly set down as 100,000 standards less to be shipped in the Gulf of Bothnia next year, but we must allow for some exaggeration in this estimate.

The first-open-water quotations will not be fixed probably till after Christmas, but we believe they will not be very different from those put before the trade on in January last. On 11 in. first-class brands a trifle advance may be asked, but this will probably be counterbalanced by a corresponding reduction on the qualities and sizes more abundant. The shortness looked forward to will not do more than equalize the slackened demand of the present time. It will require a considerably lessened stock at the port of shipment to keep prices about on the scale they now rule.

When the demand was lively, prior to the steamer trade shippers, on the other side used to hurry their opening quotations forward, and take as early advantage of the market as possible. Since communications have become more rapid there is not the same object to buy early. Freights are nearly always obtainable at low rates, and the chance of their advancing would not be sufficiently strong to have any influence on the trade. The merchant or importer can now regulate his purchases in reference to the freght market with as much certainty as he could if he were arranging to supply some distant place by railway. When sailing ships did the carrying, things were not so easily accommodated.

### TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 10 00@13 00 |

### BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

### WINNIPEG.

The *Commercial* says:—The business of the season in the lumber trade is drawing to a a close, and last week gave strong evidence of this. Some demands for finishing stuff for the different buildings now approaching completion sales of storm sash made up the business of the week, and the only hope of any further stir during this month lies in the probability of storage elevators being constructed during the remainder of the year.

### TYNE.

The *Timber Trades Journal* of Oct. 31st says:—The arrivals of the past seven days show a great decrease upon the previous week's report, no one item of great importance appearing in the list. Pit-props and staves seem to be about the largest items, and a few cargoes deals and battens also appear. So far the imports of 1885, according to the board of trade returns, are in excess of 1884, the figures from your list being: 1884, 150,262 loads; against 159,042 for 1885; showing an increase, in round numbers, of about 9,000 loads for this year. The figures are a little astonishing, more especially to those who consider there is little or nothing doing. The extremely wet weather of the past seven days has very materially retarded all building operations, and for the time caused a great slacking in the housebuilding trade.

### ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₱ M | $58 00@55 00 |
| Pine, fourths | 48 00@50 00 |
| Pine, selects | 45 00@47 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₱ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₱ M | 100 @120 00 |
| Black waluut, ⅞ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ⅞-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅞-inch | 28 00@30 00 |
| Ash, good, ₱ M | 40 00@43 00 |
| Ash, second quality, ₱ M | 25 00@30 00 |
| Cherry, good, ₱ M | 60 00@85 00 |
| Cherry, common, ₱ M | 25 00@30 00 |
| Oak, good, ₱ M | 40 00@43 00 |
| Oak, second quality, ₱ M | 20 00@25 00 |
| Basswood, ₱ M | 25 00@30 00 |
| Hickory, ₱ M | 40 00@40 00 |
| Maple, Canada, ₱ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₱ M | 38 00@40 00 |
| Shingles, shaved, pine, ₱ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ₱ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

### HULL.

The *Timber Trades Journal* of Oct. 31st. says:—The arrivals of wood goods into this port for the past week are 20,043 loads, of which 1,007 were from Quebec.

The arrivals are very heavy and the port very active, The local merchants have got the bulk of their goods in, and there is little more to come forward. It is expected that November and December arrivals will fall off from the usual average, as late charters have been difficult to obtain for sailing vessels, and steamers have picked up the balances of goods very readily.

The present is a time when wood is exceedingly low, but it does not appear to animate the building trade in a manner we might reasonably expect. Every one pleads slackness, and there is no question that trade in all branches, within reach of this port, is exceptionally dull.

### QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c measured and culled to date:—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine | 3,513,515 | 2,198,453 | 2,830,948 |
| White Pine | 7,130,419 | 3,686,744 | 2,711,467 |
| Red Pine | 474,458 | 327,735 | 70,758 |
| Oak | 1,888,294 | 772,042 | 1,566,968 |
| Elm | 309,261 | 635,812 | 1,018,932 |
| Ash | 257,827 | 410,458 | 287,595 |
| Basswood | 2,244 | 4,544 | 95 |
| Butternut | 1,028 | 1,260 | 3,265 |
| Tamarac | 7,409 | 19,113 | 3,622 |
| Birch & Maple | 138,803 | 201,289 | 381,085 |
| Masts & Bowsprits | —pcs | —pcs | —pcs |
| Spars | — pcs | 41 pcs | 17 pcs |
| Std. Staves | 677.3.0.15 | 93.6.1.12 | 77.7.3.20 |
| W. I. Staves | 619.2.3.20 | 260.8.0.19 | 185.9.3.25 |
| Brl. Staves | 115.3.0.16 | 9.7.1.0 | 209.2.0.24 |

JAMES PATTON,
Quebec, Nov. 23. Supervisor of Cullers.

WHY WILL YOU cough when Shiloch's Cure will give give immediate relief. Price 10 cts, 50 cts. and $1. For sale by Ormond & Walsh druggists, Peterborough.

MONTREAL SAW WORKS!

CHAS. M. WHITLAW, Manager.

MONTREAL.

OFFICE: 452 St. Paul Street. P. O. Box, 1167.

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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,
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ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

BAND SAWS, BARREL AND HEADING SAWS, EMERY WHEELS, GUMMERS AND CUTTERS FILES,
RUBBER & LEATHER BELTING, SWAGES, SAW SETS.

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Montreal Saw Works
CHAS. M. WHITLAW MANAGER
OFFICE ST. PAUL STREET
Montreal, Que.

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PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING

# CANOES

***Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.***

***Gold Medal, London Fisheries Exhibition, 1883.***

J. Z. ROGERS,
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Send 3 cent Stamp for Illustrated Catalogue.

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MANUFACTURER OF

KNIGHT'S PATENT "EXCELLSIOR"

# SAW MILL DOGS

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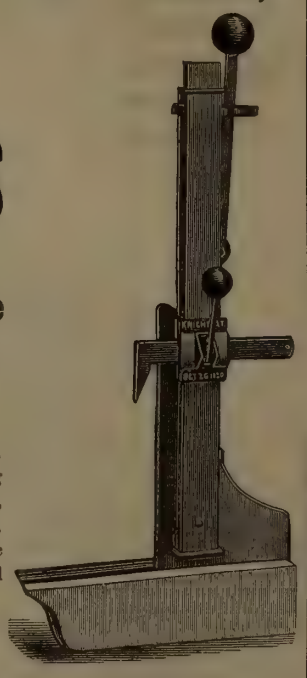
**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



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**Manufactured by HUGH GIBSON, CHATHAM.**

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MANUFACTURER OF AND DEALER IN

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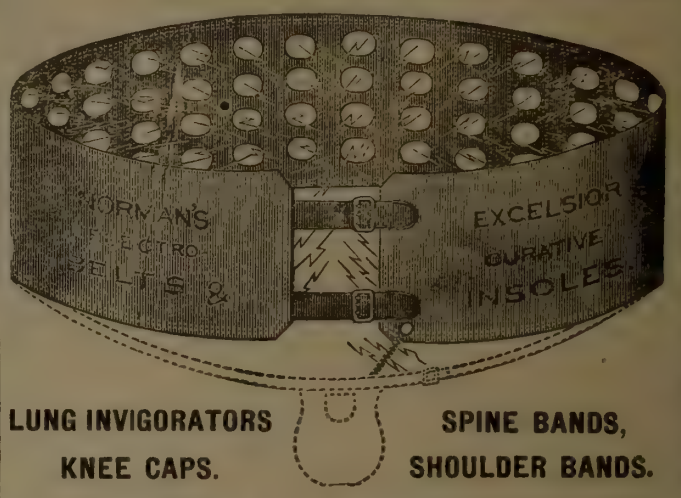
**Do not buy any Belting unless with DIXON'S PATENT LAP JOINT. It will last longer and do more service than any other. Please note the address, 70 KING ST. EAST, and send for Circulars and Latest Discounts.**

# Norman's Electro-Curative Belt!

***4 QUEEN ST., EAST, TORONTO.***

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**SHOULDER BANDS.**

**This Belt is the last improvement and the best yet developed Curative Appliance in the world for**

**INDIGESTION,**
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**RHEUMATISM,**

**and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.**

# *A. NORMAN, Medical Electrician*

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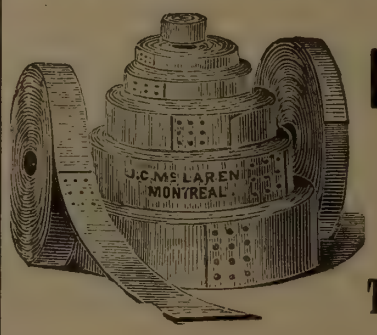
***N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination***

ESTABLISHED 1856

# OAK TANNED BELTING




**Acknowledged by all to be the**

## Best Belt ever offered

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*EVERY BELT GUARANTEED*

**The Best Mills in the Country use it.**

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

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It has a circulation among saw mill owners, manufacturers, lumber and timber dealers and all classes connected with the timber business.

Examine the field, count the cost, and you will at once decide that the CANADA LUMBERMAN is the

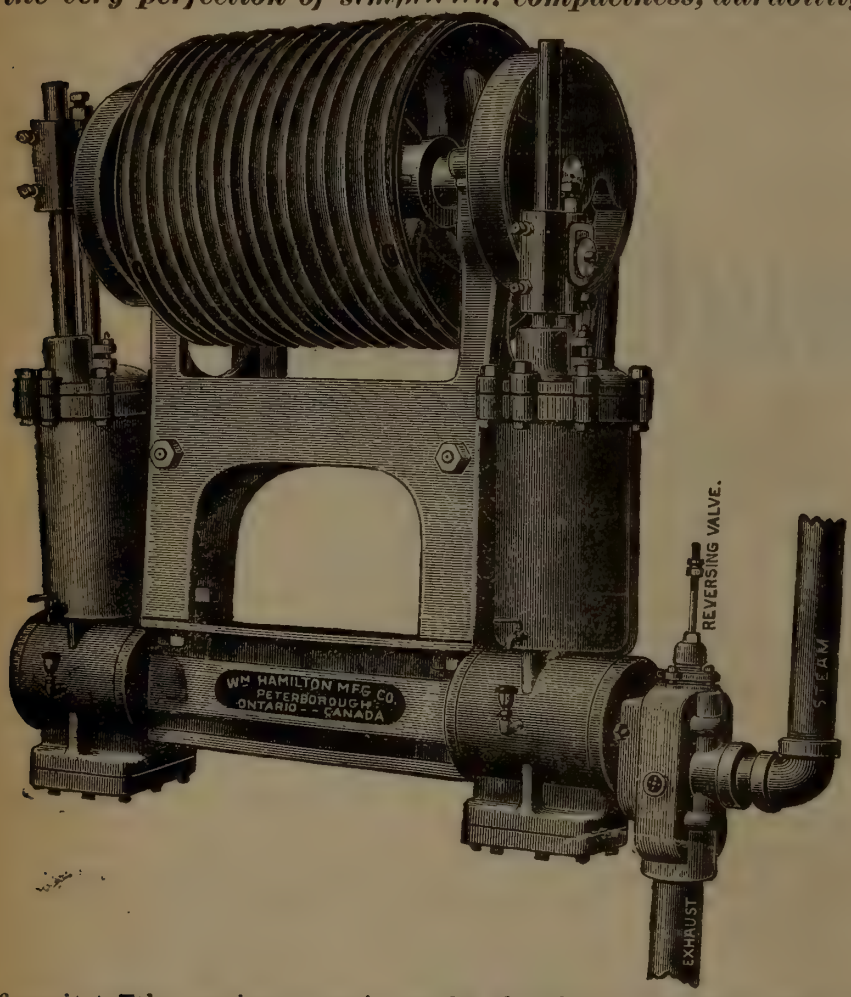
———*CHEAPEST, BEST, MOST RELIABLE and ONLY TRUE MEDIUM*———

for placing your goods or wares before the saw-mill men and lumber and timber dealers of the Dominion.

# CUNNINGHAM'S
# PATENT OSCILLATING TWIN ENGINE

## FOR STEAM FEED IN CIRCULAR MILLS WITH RACK OR ROPE.

***This Engine has practically but two moving parts, aside from cranks and shafts. The whole array of eccentrics, valves, valve rods, connecting rods, cross heads, slides, levers, rock shafts, bell cranks, etc., is done away with, and the very perfection of simplicity, compactness, durability and cheapness attained.***




The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoupling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

## We would also call attention to our Improved Band Saw-Mill for cutting logs

☞ ***We guarantee this to be the best Mill of its kind got up, and would ask any one wanting a good Band Saw-Mill to communicate with us. We would also call the attention of Mill Men to our new IRON GANGS, CIRCULAR MILLS and MILL MACHINERY. For further information, prices, &c., address the Manufacturers,***

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# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

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***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

**Cheap.**

*Cheaper than any Pump built.*

*Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.*

**Simple.**

*Only two moving parts in Engine.*

**Compact.**

*Having the well known compactness of direct acting Pumps.*

**Durable.**

*Guaranteed the most durable Pump made; impossible to break down.*

*Our PUMPS for general water supply give the greatest satisfaction.*

*IF YOU WANT*

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**Pump**

FOR ANY PURPOSE

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**PUMPS**

— TO —

**RUN WITH BELT**

— OR —

**DIRECT FROM POWER**

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# HARRIS, HEENAN & Co.

124 AND 126 QUEEN STREET, - - MONTREAL.

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

**TESTIMONIAL**
IRA GOULD & SONS, CITY MILLS,
Nov. 13th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Foreman City Flour Mills.

**TESTIMONIAL.**

PECK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

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***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.

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## JAMES ROBERTSON & CO.

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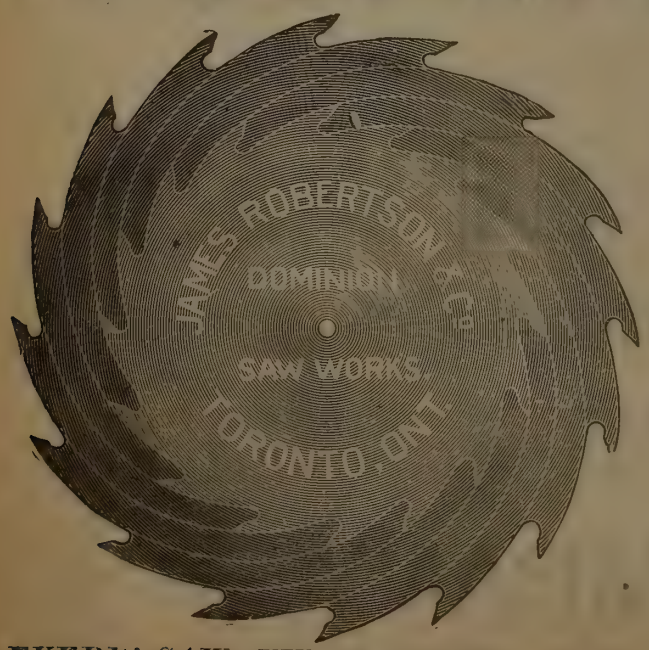


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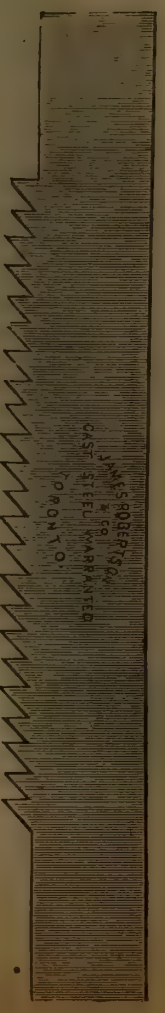

# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURER AND MINERS GAZETTE.

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., DECEMBER 1, 1885. NO. 23.


## CARE OF THE FORESTS.

Forest preservation in Canada was the subject of a contribution by Mr. A. T. Drummond. of this city, at the annual meeting of the American Forestry Congress at Boston. In a *resume* of the present position of the forest preserves of this country, the author points out that, though in the Provinces of Ontario and Quebec there are still considerable areas of red and white pine along the northern tributaries of the great lumbering rivers, the trees are of diminished size compared with those common 20 years ago, and the lumbermen are fast approaching the limit of the growth of these most valuable of our lumber woods. New Brunswick's preserves have also been greatly encroached upon; Nova Scotia has scarcely any left; in the Northwest the country is chiefly prairie, and there the question is how far forests may be created; in fact it is only in British Columbia that they are yet largely untouched, and these, with what remains in the eastern provinces, it is urged, should be conserved as to be a continued source of revenue. The money to be gained from the manufacture of lumber, nowever, is not the only measure of importance of forests to the country. That is an item effecting the welfare of the individual provinces or states of the two great political divisions of the continent alone, and if their people choose to waste in a comparatively few years the natural wealth with which they have been endowed it would only be a matter of regret to their own citizens who would have to make up in other ways the revenue their governments generally derive from the forests under their control. There is another and a wider ground in which the people of the whole country are interested. The denudation of the forests has been scientifically proved to have a serious effect on the rain fall of the adjoining territory, and on the streams flowing through it. In this connection, which, on account of local geographical conditions, applies less to Canada than the United States, many states may be and are effected by the unwise action of one of their number. Streams running through and serving the purpose of several states may be so dried up as to cause serious loss to their inhabitants who are in no way to blame for permitting the causes of the trouble Two years ago a serious fall in the level of the Hudson was attributed to the stripping of the forest land at the head waters of the river, and the feeders of the Erie canal fell so low as to cause fears that a greatly increased expenditure would be necessary to maintain the usefulness of that avenue of commerce. Thus states possessing large wooded areas owe a duty to their neighbors as well as to themselves, and how they may best discharge it is the subject of Mr. Drummond's essay. The work is twofold in it nature—preservation and renewel. Besides Germany, France and Sweden, in Europe, India and Cape Colony have forestry departments, the latter being arranged on the fundamental principle that every tree cut down shall be replaced by a newly planted one; as the Government report says, forest destruction is as firmly opposed as any other moral evil. The expense of this is not so formidable as might be thought, each South African forester being expected, besides his other duties, to annually raise and transplant to the burned and cleared districts 4,000 young trees. This is urged on American Governments as an example worthy of being followed as regards one part of the problem—replanting. Preservation is a more complex and, perhaps, more difficult object to secure. The present system of granting leases, by which lumbermen have virtually continuous control of the limits once they obtain possession of them is open to objection, though with regard to existing leases it cannot fairly be altered without compensation to the holders. In new districts though, it is urged, a wiser course might be pursued in the way of restricting the leases to definite terms of five or seven years, when the land would be given a rest for say 25 years, to enable the smaller trees to reach a suitable size for the lumberman's use; limits should also be of restricted size as is the case in Manitoba and the Northwest, where alone the Dominion Government have control of the wood lands, so that the systematic work of replanting and protection might be more readily carried on; square timber production which causes both a waste and danger, increasing the material by which fires are carried, should be discouraged; the cutting of trees under 12 inches should be a punishable offence, and the starting of forest fires a criminal ane, involving the punishment of every member of the camping party whose negligence was the cause of the catastrophe. These, Mr. Drummond thinks, are the remedies for the evil which all acknowledge to exist in a greater or less degree in each of the provinces—in Quebec, owing to recent legislation, perhaps, least of any—and the means of enforcing them, he sums up in the organization of a forestry department by each local government, with a regular superintendent to look after and oversee the forest ranges and their duties, to prevent encroachment by lumbermen on unleased Crown lands. to see that small trees were not cut, to investigate the cause of every fire happening within their districts and punish the guilty parties, to raise exhausted or young trees for replanting the burned districts and to collect and sow the seeds of desirable kinds of trees, and to generally encourage tree-planting by land owners and disseminate information about trees and tree culture.—*Montreal Gazette.*

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Ross & Co., of Quebec, have purchased a tract of pine of S. Coleman, Chicago, situated on Monistique river, north of Driggs station.

## A QUESTION OF STUMPAGE.

An agitation is on foot in New Brunswick to secure the removal or the reduction of the stumpage charged by the Provincial Government by all logs cut on the public lands. The logs sawn in that province are almost entirely spruce, there being little pine of any value. The wood exports are, therefore, almost exclusively of spruce deals and boards and scantling, which find sale in Great Britain. Here they come in competition with the woods of Norway and Sweden and Russia. The Norway woods have the advantage of a shorter sea voyage, consequently cheaper freight than the New Brunswick deals, and the cost of the labour employed in logging and milling is less. Under these circumstances the profitable production of spruce lumber in New Brunwick is carried on with difficulty. Not long ago, the New Brunswick Government increased the rate of stumpage. They gave the lumbermen longer leases of their lands, and holding that this gave their business greater security on the ground of permanency, the Government decided to exact heavier stumpage in return for the so-called privilege. It is now claimed that, looking at the disadvantages under which the lumberman and the manufacturers of lumber are laboring, the stumpage charges cannot be borne and ought to be abolished; and it is maintained that although the Provincial Government may lose some revenue, the people of the province must gain very largely. It is, in fact, asserted very positively that if the stumpage is adhered to by the Provincial Government, the lumbering business cannot go on. The answer of the Government has not yet been received.

It is claimed by some that in fairness the Government ought not to levy stumpage charges at all. Under the terms of the Washington treaty and for Dominion purposes it became necessary to abolish an export duty which New Brunswick had for many years imposed on sawn lumber. The Dominion recouped the Province for the loss by an allowance of $150,000 annually. It held by many that this $150,000 a year was actually in lieu of New Brunswick's revenue from the lumber on her own lands, but the several Governments of the Province have thought differently, for they have not only accepted the $150,000, which represents the loss sustained by the Government in those days three times over, but they afterwards levied a stumpage tax. and have steadily gone on increasing it, so that now they receive from stumpage more than they formerly received from the export duty. They had the power to do this but there is a suspicion that it was not good policy and that if the Provincial expenditure had been kept within reasonable limits they need not have resorted to the stumpage and especially to repeated increase of the rate. However this may be—and it is a domestic question for home settlement—it is now certain that the lumbermen of the Province, who are largely manufacturers of their own lumber, for which they have to find a market where they can, claim that they are heavily handicapped by the stumpage fees and are unable to conduct their business with any profit to themselves with such a burthen on their backs, especially in these times when the lumber market in England is so demoralized. As lumbering and the manufacture of lumber constitute the great industry of New Brunswick; as this interest permeates every branch of trade and effects alike the farmer, the laborer, the mechanic and the merchant, the lumbermen's complaints will, no doubt, receive respectful consideration from the Government and the Legislature. If this were a question of whether a few persons engaged in a particular business should sink or swim, the Government might not be induced to modify their policy. as they might assume that others would step in to take the place of those who might drop out. But this is not the fact or the reasonable assumption here. Not a few persons only but scores of thousands feel the effect of the depression and the burthens. All those who have invested capital in the lumbering on the public lands are complainants. And it may be that the existence of many business houses, carrying on extensive enterprises, is staked on the decision of the Government.—*Montreal Herald.*

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## BOILER CORROSION BY SULPHUR.

A French commission on the inspection of boilers and the investigation of accidents resulting from their explosion, had its attention drawn to the explosion of two boilers, one at a colliery in Nieve, and the other, at the Ougree Iron Works, in Belgium. In both cases the accident was attributed to the destructive effect on the metal of sulphuric acid. In the case of the boiler at Nievre, it contained large scales of oxide of iron, and also sulphur in some form of combination was found on the corroded parts. At the Ougree Works, sulphuric acid was actually found in a free state as well as in the form of sulphate of iron. Two samples of the soot left by the smoke in the parts destroyed were analyzed. They gave sulphate of iron between 52 and 53 per cent., and free sulphuric acid in ore sample 1.42 and in another nearly 12 per cent. The action was thus explained. The soot was deposited during the working of the puddling furnaces in an entirely dry state, but when the fires were put out, the air, loaded with moisture, entered and converted the soot into a paste. The oxidation of the sulphurous acid then occurred, and the iron was in the best condition to be attacked. The corrosive action was thus going on constantly when the boiler was not at work and in parts that could not be cleaned out, while no action occurred where the soot had been cleared away.

## BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of Oct. 1885, and also for the 10 months ending Oct., 1885:

MONTH ENDED 31ST OCT., 1885.

| *Timber (Hewn).* | *Quantity. Loads.* | *Value. £.* |
|---|---|---|
| Russia | 30,687 | 52,870 |
| Sweden and Norway | 62,133 | 88,878 |
| Germany | 23,235 | 63,329 |
| United States | 7,267 | 26 891 |
| British India | 5,986 | 79,665 |
| British North America | 28,766 | 122,112 |
| Other Countries | 31,989 | 33,895 |
| Total | 190,063 | 467,640 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 198,938 | 438,066 |
| Sweden and Norway | 228,527 | 470,859 |
| British North America | 132,658 | 322.881 |
| Other Countries | 21,240 | 65,177 |
| Total | 581,363 | 1,296,983 |
| Staves, (all sizes) | 14,235 | 54,001 |
| Mahogany (tons) | 4,954 | 41,761 |
| Total of Hewn and Sawn | 771,426 | 1,764,623 |

TEN MONTHS ENDED OCT. 31ST, 1885.

| *Timber (Hewn).* | | |
|---|---|---|
| Russia | 287,741 | 425,026 |
| Sweden and Norway | 481,134 | 674,973 |
| Germany | 268,639 | 631,106 |
| United States | 127,942 | 480,830 |
| British India | 34,596 | 467,627 |
| British North America | 217,020 | 952,714 |
| Other Countries | 344,136 | 477,168 |
| Total | 1,711,208 | 4,059,444 |
| *Timber (Sawn or Split, Planed or Dressed).* | | |
| Russia | 1,041,638 | 2,255,550 |
| Sweden and Norway | 1,546,314 | 3,244.503 |
| British North America | 816,456 | 1,997,727 |
| Other Countries | 299,228 | 891,296 |
| Total | 3,703,636 | 8,389,076 |
| Staves (all sizes) | 104,580 | 430,313 |
| Mahogany (tons) | 50,625 | 441,837 |
| Total of Hewn and Sawn | 5,414,844 | 12,448,520 |

## HOW TO PUT AN ENGINE IN LINE.

An engine in line when the axis of the cylinder, and the piston rod are in one and the same straight line in all positions, says Leffel's *Millwright & Mechanic*. This line should intersect the axis of the engine shaft, and be at right angles to it. The guides should also be parallel thereto. The shaft must be level, but the cylinder may be level, inclined, or vertical according to the design of the engine.

To line up an engine, as it is generally termed, take of the cylinder head, remove the piston, crosshead and connectiug rod, then with a centre punch make four marks in the countre bore at each end of the cylinder at equal distances apart around the bore. Take a piece of stiff hoop iron with a hole at one end of it, slip it on to one of the stud-bolts of the back cylinder head, and secure it firmly with a nut, after which it may be bent in the shape of a crank, one end projecting across the cylinder at its centre, at a sufficient distance from it to admit of convenient and accurate measurement. Next draw a fine line through the cylinder, and attach one end of it to the temporary crank above mentioned, and the other end to a stake driven into the floor at the back end of the bedplate. Then with a piece of hardwood or stiff wire pointed at each end and equal in length to half the diameter of the cylinder, set the line, so that, when one point of the wood or wire is inserted in any one of the centre-punch marks at either end of the cylinder, the other end will feel the line. Next see of this line passes through the centre of the shaft; if so, the cylinder is in line with the shaft; if not, one or the other must be moved, which requires both skill and judgment, since engines differ so much in design and construction. Now turn the engine shaft round till the crack-pin almost touches the line passing through the centre of the cylinder, then ascertain by measurement whether the line is equi-distant from the collars on the crack-pin. Then turn the shaft on the other centre until the crack pin feels the line. If the measures correspond the shaft is in line with the cylinder; if not they will show which end needs to be moved. The operation may have to be gone over several times before a definite conclusion can be arrived at. The shaft may be leveled by placing a spirit level on it, if there be room; if not, drop a plumb-line passing through the centre of the crack-pin and shaft; then by placing the crank at both centres and at half-stroke, the line will show whether the shaft is level or not. The guides may be brought into line with the cylinder by measuring from each end of each guide to the line passing through the centre of the cylinder, and moving them until they are parallel to the line and to each other. To adjust them to the horizontal, a spirit-level may be placed on their top faces; if no level is at hand a square and plumb-line may be used; where these accessories are not at hand a straight edge placed across them will determine by actual measurement whether they are in line with the centre line of the cylinder or not.

Engines get out of line from the following causes: faults of design, faults of construction, overwork, the character of the work which they are performing, or from the loss of the crank wearing away the face of the main bearing against which it revolves. To move an engine shaft and pillow-blocks into line with the centre of the cylinder, screw down the caps of the pillow-blocks firmly on the shaft, then slack up on the bolts that tie down the pillow-blocks to the bed-plate, after which the shaft, pillow-blocks and fly wheel may be moved from the back end by means of a lever or jack-screw, after which they should be firmly tied, and the set screws and wedges re-adjusted. To move a cylinder, if the connections be short and stiff, remove the belts which tie it to the bed-plate, then measure from the plane of the cylinder to some fixed object such as a wall, post or column, cut a plank or scantling about an inch longer than the actual measurement from the cylinder to the wall, so that when placed against the cylinder. it may stand slightly oblique; then by driving on the end of the plank with a sledge or heavy hammer, the cylinder may easily be moved. The holes should then be reamed, and new bolts corresponding to the reamer substituted for the old ones. The cylinders, guides, and pillow-blocks of all engines should be double pinned to prevent them from getting out of line, and whenever it becomes necessary from wear to move them, the holes may be re-reamed and new pins substitued.

## LEATHERS ON LUMBER.

Don. J. Leathers, of Grand Rapids, the well-known dealer in pine lands, while in Muskegon closing up the details of the White, Swan & Smith transfer to the Lumber Company, was seen by a reporter for the *News* and peremptorily pumped pertaining to the pine prospects of the peninsula.

"Is stumpage higher this fall, Mr. Leathers, than it has been for the past few years?"

"Oh, yes; from 40 to 50 per cent."

"What are the principal reasons for the rapid advance?"

"There is a corner on pine. But comparatively few, if any, tracts are now held for speculative purposes. Non-resident speculative owners have closed out and the pine forests of Michigan are owned by a very few men, and these men are operating for an immediate profit. Money put in Michigan pine is turned very rapidly. There is a general scramble desirable stumpage and lumber will be manufactured with a rush for the next two years."

"How many more years of lumbering is there in Michigan?"

"Not over five years. There are some tracts of course which will stand longer than that, but estimating the remaining pine as closely as possible, and figuring on the basis of the past few season's cut, and five years will see the forests pretty well stripped."

* * * * * * * *

"To what section will the lumbermen turn their attention when the timber belt of Michigan is denuded?"

"To the South and Washington Territory. As every one knows, there are vast tracts of pine in the Southern States and of as good quality as can be obtained anywhere. But it will require a good deal of northern capital and northern experience and push to lumber down there with profit. It is my impression that excellent tracts of pine can be bought in the south at present cheaper than a year or two years ago. At that time there was a rush for southern pine, the demand being mostly for speculative purposes. The boom has gradually died out, and to my certain knowledge a number of purchasers would sell out to-day for less than they paid two years ago. It will be five or six years yet before lumbering will commence in earnest there, and but few persons are able to tie up their money that length of time and pay taxes— which are growing heavier each year—hoping for a rise in the market. Such men as Maj. A. B. Watson, D. A. Blodgett, as well as others which might be named, can't be very easily frozen out, and they will make money on their investment."

"Has there been as much money made in lumber in this state as people have been led to believe?"

"Well, I will cite you a single instance, which will compare favorably with a hundred such deals. Several years ago White, Swan & Smith purchased a tract of pine land for $155,000. They cut 40,000,000 of the tract and sold the remaining 80,000,000 feet for $400,000. I made this sale and know the figures are approximately correct. While the lumber remains in Michigan there will be a greater activity in all operations than heretofore."

## WOOD-WORKING PATENTS.

The following list of patents relating to the wood-working interests, granted by the United States Patent Office, November 17th, 1885, is specially reported by Franklyn H. Hough, solicitor of American and Foreign patents, 925 F. Street, N. W., Washington, D. C.

330,803.—Lumber-trimmer—A. Rogers, Muskegon, Mich.

330,797.—Planer-knife Grinder—G. H. Mills, Concord, N. H.

336,564.—Planing and matching machine—E. H. N. Clarkson, Baltimore, M. D.

330,399.—Saw gummer—F. Herhold & J. E. Mills, Chicago, Ill.

330,484.—Saw mill carriage—G. M. Hinkley, Milwaukee, Wis.

330,720.—Saw mill carriage—S. W. Little, Evansville, Ind.

330,499.—Saw punching and setting machine—J. Laybolt, Wakefield, Mass.

330,396.—Saw swage—D. B. Hanson, Indianapolis, Ind.

330,680.—Saw tooth—J. A. Dean, Worcester, Mass.

PATENTS ISSUED NOV. 24.

320,867.—Chuck, lathe—J. C. Bauer, London, England.

330,948.—Lathe cutting appliance—L. E. Wheeler, East Hampton, Mass.

331,195.—Saw, splitting—W. H. Hawley, Hanford, Cal.

331,262.—Saw tooth swaging machine—J. E. Traverse, New York, N. Y.

331,135.—Sawing machine, rift—O. S. Holt, Rock Island, Ill.

331,054.—Stump extractor—J. B. Heard, Bowling Green, Ky.

330,994.—Stump puller—J. W. Mayberry, Marvyn, Ala.

## A CHICAGO OPINION.

The last issue of the *Lumber Trade Journal* contains the following on the situation in the lumber market:—

It is slowly but surely being realized by the dealers throughout the country that the advance in price was made in good faith, and that the jobbers are determined to adhere strictly to present quotations. In scanning our various reports from the lumber markets elsewhere we find the same feeling as to prices predominate, and, indeed, in not a few of them there are indications of further advances. It may be well for the dealers that are still withholding orders (and we know there are many such) to take timely cognizance of the very important fact to them that prices are not going to decline, and it is not unlikely that a very nice per cent will be saved by placing orders now. It is thought by many the advance and those to be made, if any, will continue during next season. This idea we cannot endorse altogether, as the indications already are that as much, if not more, logs will be got out this winter than last. Many large logging crews are going out already, and there are more camps located now than for three previous years at as early a date.

In conversation with a leading lumberman the other day he said his firm would reduce its cut from 35,000,000 feet to 30,000,000 feet, but but it was truly astonishing to him to see the general disposition there was with other large operators to be first on the ground, prepared to do more work and stay longer than last year.

If such be the facts it is folly to think that prices will maintain their present high standard after the opening of navigation next year. But in the meantime, Mr. Dealer, what are going to do? The extreme caution that actuated you in withholding your orders the greater part of this year places you now with limited and broken stocks. To supply your trade you must buy sooner or later in large quantities. If you dilly dally along as you have been doing you will be compelled to not only meet present but doubtless higher prices.

### Death of a Pioneer.

Mr. Edward McGillivray, one of the most widely known commercial men in the Ottawa valley, died on Nov. 24th of paralysis of the brain. For nearly fifty years he carried on a large wholesale and retail trade, and had extensive business connections with the lumbermen of the Ottawa country. He was mayor of Ottawa during the years of 1858 and 1859, and was connected with every enterprise for the advancement of the place from the early days of Bytown down the present. The Montreal Telegraph Company, the St. Lawrence and Ottawa railway and the Canada Atlantic railway are among the most prominent enterprises to which Mr. McGillivray lent the aid of his energetic assistance.

### The Largest Load of Lumber.

The Oswego *Palladium* of Nov. 19th says:—The barge Dakota arrived here last night from Brockville, in tow of the tug Proctor, having on board the largest load of lumber ever brought into this port by any craft. The cargo was consigned to Page, Fairchild & Co. and consisted of 618,825 feet of pine lumber. The amount of duty paid was $1,237.65.

SAYS the *Lumberman's Gazette*:—Basswood is manifestly growing in popularity. Not only is it used for box-making and for similar purposes, but it has a large place in moulding shops. It disputes supremacy in this respect with whitewood, and both have a lead over gum. Pine is getting too high in price to put it into mouldings, when cheaper woods wil answer the purpose just as well. It is only the force of habit that continues the use of pine to the exclusion of other good and easily worked woods, and as wood-workers learn the value and availability of whitewood and basswood they will be more extensively employed.

**Consumption Cured.**

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, and having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. Noyes, 149 Powers Block, Rochester, N. Y. lyeow45

Every observer who walks the streets of a great city, and scans with intelligent eye the colorless faces of more than fifty per cent of the people he meets, can easily agree with us in the statement, that this age, which makes such drafts upon the working energies of the greater part of men in the intense pursuit of business, has destroyed in a proportionate degree the animal health and robust constitution. Nature, in this stage of exhaustion, cannot be restored of itself, but requires some stimulating tonic to trengthen and keep the system in regular order, and in Northrop & Lymun's Quinine Wine we have the exact remedy required. The peculiar operation of this medicine, in cases of general debility and nervous prostration, has undergone long and close observation, and it is believed it will never fail, if properly and judiciously administered. Prepared by Northrop & Lymuan, Toronto, and sold by all druggists.

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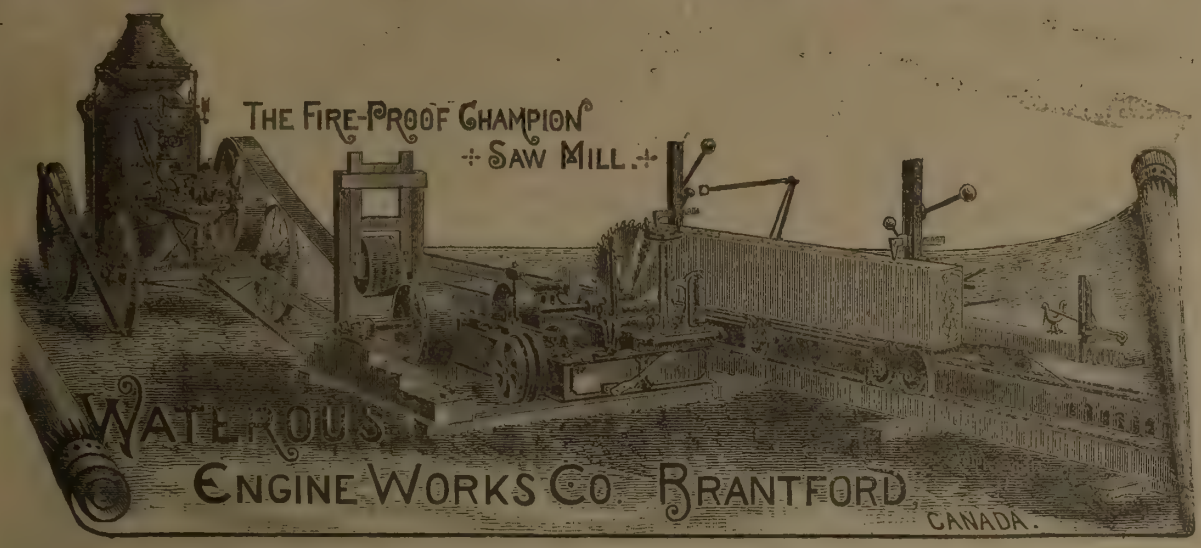


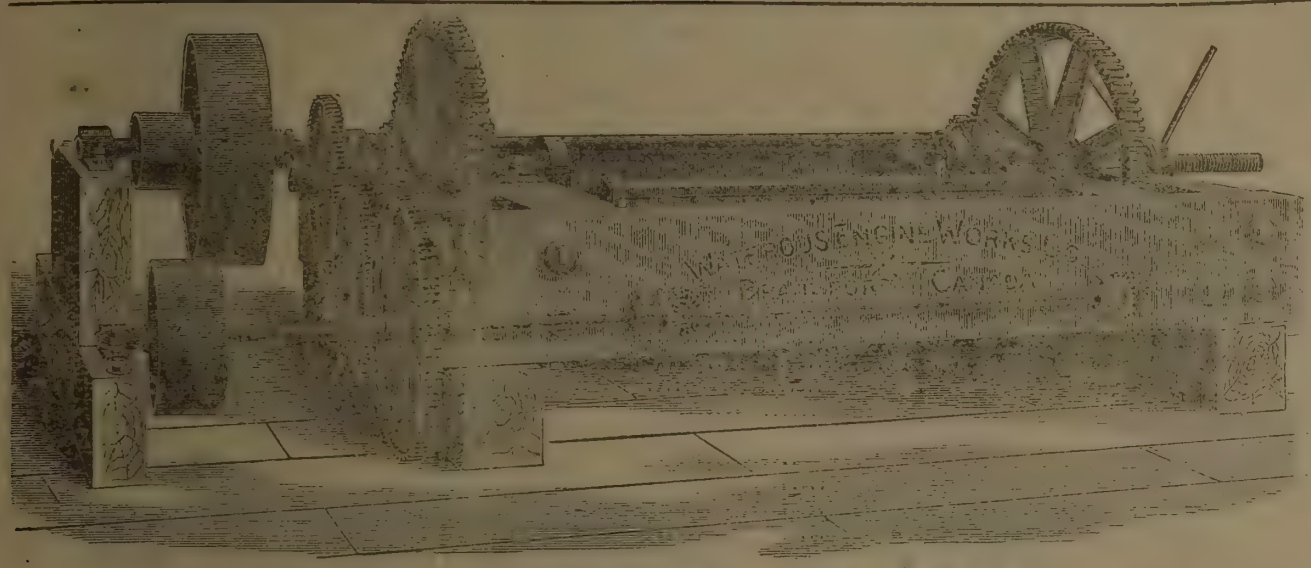

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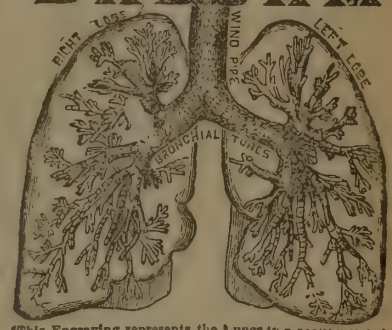


(This Engraving represents the Lungs in a healthy state.)

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## SIMPLY A LUMBER PILE.

In every business in which a man can engage there are opportunities for exhibiting distinguishing peculiarities, that of themselves indicate, to a very great extent, the success of the business.

The practical business men, and one who thoroughly understands the necessities of a successful manufacturing industry. will have his buildings and machinery so constructed and arranged as that he can produce the articles of manufacture at the least expense and with the least amount of labor. His employees will partake somewhat of the spirit of their employer, and a neat clean work-shop or factory will be the result. The various tools for daily use will be conveniently arranged in drawers. or on tool racks prepared for the purpose. The machinery will be clean, the floor about it will not be covered with an accumulation of chips, shavings, or dust; from the work of the day before, but everything will be as clean as possible to have it, (the character of work done of course to be considered), a spirit of rivalry can easily be instilled into each employee, so that he will be always on the alert to outrival his nearest neighbor in doing nice work, and keeping his machine or tools in better condition. It was once my pleasure to visit a large planing mill and sash, door and blind factory, where a weekly premium was given to the employee who during the week turned out the most perfect work, and kept his machine or tools in the best order. It may perhaps seem like a stretch of imagination to say the work rooms, at the close of the days' work, were as clean as the office, but it was literally true, the last ten minutes of each day was occupied by each workman in cleaning his machine or tools and putting them in their proper places. The same system of order can be and should be practiced in every manufacturing and mercantile industry upon the basis of the axiom, "Whatever is worth doing at all, is worth doing well." In no industry do we find just such a condition of things with reference to system and order as in the lumber business. We find on going through the yards of the large manufacturer or extensive wholesale dealer of lumber that almost universally there is manifest great care in piling their lumber; their yards are regularly laid out with avenues or roadways on either side of which are huge piles of lumber, numbered, the date of piling stamped on many of them. Especially is this so in the case of hardwood. The end of every board is covered from a half to three-quarters of an inch with the stringer to avoid cracking or checking, the piles are uniform in size, grades and varieties are carefully kept secret and not unfrequently a map of the yard is on file in the office from which any information can be had that could be obtained by a personal visit, save the actual appearance of the lumber itself. The yard is clean, no piles of odds and ends are visible, and everything is in order. But with the yard of the retail dealer, how strange the contrast. We do not mean to say that all retail lumber dealers are careless, but it is a fact that the large majority of the retail lumber yards of the country are in a confusion that is inexcusable; drives and roadways are blocked with piles of lumber going to decay, thrown there when some customer, perhaps, was looking over stock and selecting such as he wanted, the culls thrown aside where they yet remain. It is not unusual to see in these same yards lumber piled solid; the result of which is moulded and discoloured lumber and if green when piled, or if it stands through a season of rain or snow it gathers water and very soon is unfit for use. So little care is exercised in keeping sizes and varieties separate, and it is not an unusual thing in a retail yard to see a pile of lumber made up of every conceiveable size, length and shape, and the owner has no more idea of what is in it than he has of the cash value it represents. These things are the rule rather than the exception, and it is a remarkable fact that it is so. A retail lumber yard can be made as at attractive to its customers as can a dry goods store; as a matter of profit it would pay, as a matter of reputation it would pay, as a matter of convenience it would pay.

Who is there that would not feel that he was getting a better quality of lumber if taken from a clean, straight pile than if the same was taken from a pile of odds and ends? The same rule applies to a lumber yard as to a store, and who is there that does not expect and is still willing to pay more per yard for cloth taken from the shelf than for a remnant of the same piece that would answer the same purpose? From every standpoint it will pay to keep a lumber yard in order.—*Lumber Trade Journal.*

## CARE OF BELTING.

This is of the utmost importance in all factories, and they should ge of the best material, and receive the best care. No belt should be allowed to sway from side to side on pulleys while running. Where leather is used, the belt becomes stretched on one side. The belt should be cut and spliced with a nice scarf lap, and well glued and fastened. Many times that would save the price of a belt, and much more than that in the necessary delay that follows, which would cover the expense of many belts. The best leather belting will stretch more in some places than others. All this class of belts are stretched and made from first-class leather, and when first applied, will run very well, and do well in a cold dry climate, but with use and atmospheric action, some portion will become stretched, and if allowed to run so, grow worse, and fly of the pulley, and many times wind around the shaft, breaking the belt, with other expensive machinery, which might have been avoided by a little labor at the right time. Rubber or canvass is not subject to the above trouble; but they have their faults. Many times a leather belt can be kept straight by using some soft dressing upon the hard places of the belt. Apply as often as there are signs of its stretching crooked. Always apply the dressing to the hollow edge of the belt; this will soften the leather and cause it to stretch and straighten. This should be done to all new leather belts, when first stretched, at any time when the belt becomes crooked, and will overcome one of the great troubles with leather.

Another is the way in which the belt is joined together. This has been a great problem to solve; that is, to fasten a belt, so that it can be readily taken up, as all belts will stretch and become too slack. It seems to me what is required is a fastener light and strong, that the belt may be fastened together in the shortest space of time: One that will leave both sides of belt as near alike as possible. One that will present as little surface to the pulley as can be. One that will hold the belt the firmest. One that can be used where tighteners are used. One that will not cause the tightener to jump Such a fastener would be of more intrinsic use to factories and mills than anything now in use There are but few fastenings now in use, but what there are objections to. Lacing is about as old as anything that is used. The objection to this is its liability of stretching, allowing the corners of the joint to catch any obstacle that comes in contact with the belt, causing the lacing to give way, as some parts of the string will stretch more than others, and thus make the belt crooked. Then, there is the extra thickness to run over the pulley, and the less surface to come in contact with pulley, causing the belt to slip there more than elsewhere; this cuts the lace, and it gives way on one side tearing out the holes. Where lacing is used, the joints should be closely watched, and as soon as the lacing becomes stretched, or to show signs of giving away, the joint should be tightened up. Many times new lacings would not be required, but by drawing up the lace, it would straighten the belt, and cause the wear to come on new places of the lacing.

Do this when the mill is shut down, thereby saving the expense of having a portion of the machinery idle in working hours. Rivets are good used in connection with the best glue, but rivets alone are objectionable, the same as of lace in making a thicker place in the belt, causing it to jump. To mend the belt, as it should be, with the above, it takes time and causes much delay. Then comes the expense, as they are more expensive than studs or hooks, as the belt requires to be cut or punched for them. This weakens the belt, causing it to give away in short time, by tearing out the ends, and in a short time the belt needs a piece spliced on, which should be done neatly. It never did pay to handle belts in a slipshod way. Many men have been forced to close up business on account of the use of poor belts. They buy them because they are the cheapest at first, but they are dearest in the end. It is not always the dearest that is the best, or the best that lasts the longest; one man may use a thing as long again as another. Get the best, and take the best care of it, then it will be the cheapest Belts should be watched as closely as any part of the machinery, as it is not alone the first cost, but the many delays they cause.—*Lumber Trade Journal.*

## SOUTH AMERICAN LUMBER EXPORT

The export of lumber to South America, says the *Monetary Times*, is an important business. Forty-seven vessels laden with lumber cleared from Montreal during the season of 1885 bound for the River Platte. Six of them left in June, twelve in July, nine each in August and September, ten in October and one on November third. Their cargoes varied from 275 000 feet to 1,186,000 (carried by the Gloaming) and the total cargoes of these amounted to 26,465,543 feet, all pine. Twelve vessels sailed during the season from other ports on the St Lawrence to the same destination, carrying 54,000 feet of pine, 4,825 000 of spruce and 668 spars, besides small stowage. There were, with two exceptions, loaded by the Export Lumber Company. We remark, besides, the sailing of the Aspotogan, on Oct. 20th, with 402,600 feet pine, for the west coast of South America. A recapitulation gives the following result:

| | |
|---|---|
| Pine | 26,519,543 |
| Spruce | 4,825,000 |
| | 31,344,543 ft. |
| Small stowage | 526,828 pcs. |

Last year was the only one which equalled the palmy days of 1873 for this trade, but the present season is not far behind. We give below a comparison for the past sixteen years:—

| | |
|---|---|
| 1885 | 31,344,543 |
| 1884 | 36,038,548 |
| 1883 | 18,768,652 |
| 1882 | 24,419,827 |
| 1881 | 16,147,941 |
| 1880 | 10,420,080 |
| 1879 | 12,476,150 |
| 1878 | 10 855,240 |
| 1877 | 8,787,928 |
| 1876 | 8,437,000 |
| 1875 | 10,123,000 |
| 1874 | 16,262,293 |
| 1873 | 36,073,919 |
| 1872 | 28,234,966 |
| 1871 | 16,005,933 |
| 1870 | 25,145,183 |

## FORESTS AND CLIMATE.

The third number of *Petermann's Mittheilungen* for this year contains an article by A Woeikof on the influence of forests on climate. The commencement of a scientific investigation of this subject was made when the Bavarian forest meteorological stations were established, and when Prussia, Alsace-Lorraine, France, Switzerland and Italy followed the example. As a general rule it may be laid down that in the warm seasons, as between forests and places close at hand which are treeless (1) the temperatures of the earth and air are lower in the former, (2) their variations are less, (3) the relative humidity is greater. After examining observations as to evoporations, Herr Woeikof states that the influence of forests in diminishing evaporation from water and the soil is so great that it cannot be accounted for alone by the lower temperature of the hot months, the greater humidity, or even by the shade. An important influence which has hitherto been but little appreciated is the protection from the wind afforded by the trees, and this the writer regards as more important than all the others together in reducing the degree of evaporation. With regard to the influence of the forests on rain and snow fall, there is yet only a single series of observations supplying comparative statistics and extending over a sufficiently long period. These were taken in the neighborhood of Nancy, and they show an important influence of forests in increasing the rain fall It might appear that the effects of forest on rain in the climate of central Europe in winter would be small, for the difference between the temperature and humidity of the forest and the open is very little, and quantity of moisture in the atmosphere is small. But the obsevations show that it is at the time of the year that forests get much more rain. This the writer attributes to the clouds being lower, the resistence which the forest offers to the movement of the air and to the moist west wind. Forests retain rain by the undergrowths of grass, moss, etc., much better than open ground, and let water off superficially only after a heavy rain fall; the remainder filters upward slowly, and much of it is used for the evaporation of trees. Although forests, especially thick, luxuriant forests, cannot exist without certain supplies of moisture, yet it is the same to them when the supplies come, for they retain what they get, and use it over a long period. One example of it is the Lenkoran forest, on the west coast of the Caspain, where the vegetation is more luxuriant than in any other part of Europe, yet very little rain falls in summer; but the rain fall in autumn and winter is great. The water is stored up by the forest, and is used in evaporation during the heat of summer. Humidity of the atmosphere, however, is not consistent with a high temperature, as the Red Sea shows; but in the forests the humidity is due to the evaporation of the leaves—in other words, to a process by which heat is converted into work, and hence the coolness.

Herr Woeikof then endeavors to ascertain the influence of forests on the climatic conditions of their neighborhoods in the western parts of the Old World, between the 38th and 52nd degrees north latitude, the places selected being in all cases in the open. Thus for the 52nd degree eight stations are taken between Valencia in Ireland on the west and the Kirghiz steppes on the east, for the 50th, Guernsey on the west, Semipalatinsk on the east, and thirteen stations, and so on for each two degrees of latitude, to 38°. The general result of observations in fifty stations in six different degrees of latitude is that in Western Europe and Asia large forests have a great influence on the temperature of places near them, and that by their influence the normal increase of temperature as we travel eastward from the Atlantic ocean to the interior of the continent is not merely interrupted, but they give places far removed from the coast a cooler summer than those actually on the sea. A striking example of this is Bosnia. An examination of the statistics show (1) that in Bosnia the summer is 1.5° to 4.5° cooler than in Herzegovnia; (2) even on the island of Lissa, in the full influence of the Adriatic sea, the summer temperature is more than a degree higher than that of Bosnia, which is separated by lofty mountain ranges from the sea. Bosnia owes this comparatively cool summer to its great forests, while Herzegovnia is almost disafforested. To sum up: Forests exercise an influence on climate which does not cease on their borders, but extends over a larger or smaller adjacent region according to the size, kind and position of forest. Hence man by afforestation and disafforestation can modify the climate around him; but it is an extreme position to hold that by afforestation the waste places of the earth can be made fertile. There are places incapable of being afforested, which would not give the necessary nourishment to trees.—*Ex.*

## AN OLD NORWEGIAN WOODEN BOOK.

From Scandinavian regions we sometimes hear of wooden antiquities being disinterred, which ages have swept over obliviously, but which when brought to light are of great interest, as connecting links between the present and the past. Sometimes it is a ship but the latest discovery, though infinitely smaller, is even more curious and admirable. The description is from *St. James' Gazette*: "The process of restoring a characteristic old wooden church at Hopperstad, in the Hardes district of Sogne, in Norway, has brought to light an interesting Norwegian mediæval relic. In a closed niche a book, consisting of six wax tablets, was found carefully enclosed in a casket of wood and leather. The tablets are of boxwood, covered with wax, each tablet having a thin border, so as to hinder the tablets from

sticking together on closing the book. This precaution has helped to keep it in excellent preservation. The contents are chiefly drawings, made by a fine style, representing scenes from village and rural life. At the end there is a large catalogue in Latin of various kinds of animals, with a translation into old Norwegian; and from this it has been conjectured that the greater portion of the book dates from the close of the thirteenth century. But there are indications that part of the book is of earlier date. The tablets are fastened together at the back, and the cover is carved and inlaid with various small pieces of differently coloured woods. The book has been placed in the Museum of Antiquities in the University of Christiania, and it is intended to publish it shortly in facsimile."

## AN IMPORTANT RAILWAY.

The late driving of the last spike on the Canadian Pacific railway has called forth a large amount of comment, which presumes to be wise, from the American press. This comment, while it admits that the work accomplished is of great importance, is generally adverse to the prospective profitableness of the railway. The men who scribble off their diurnal editorial filling for the morning newspapers assume to know that the country through which the Canadian pacific runs is mostly barren of natural resources. Their idea is that the region is too far n rth to amount to anything for settlement or development. Besides, it is in Canada, and patriotism demands that the new thoroughfare and the territory it traverses be depreciated, though likely as not the young fellows who do the scribbling are recent importations from her majesty's dominions.

The *Lumberman* aims to be fair in the treatment of foreign as well as domestic affairs. It is fully aware that when American newspapers assert that the Canadian Pacific railway will have meagre resources for local traffic they are in grave error. As a matter of fact the road, for its entire length, runs through territory rich in resources. Much contempt has been thrown at the section north of Lake Superior region, which is described as utterly barren and worthless. The truth is that though the Lake Superior region is rocky, and much of it unfit for agriculture, those ancient and primitive ledges, said to be the oldest of earth, inclose the richest of iron copper, and silver deposits. These have been sufficiently developed, especially in the vicinity of Port Arthur, to prove beyond doubt that the region will one day teem with industry, and that the Canadian Pacific will be freighted with results moving east and west. An important factor of local traffic on this portion of the route will be the rich deposits of building stone that abound. Lately the finest marble of the Scotch variety, has been developed near Port Arthur, and is already being shipped. The Rabbis mountain silver mine shows what can be done in the unearthing of this precious metal. It is well known that the most promising silver discoveries have been made on the north side of Lake Superior. Silver Islet and Isle Royal testify to this assertion.

Further west, in the Lake of the Woods region, the country is seamed with iron and other minerals. In that district, also, is a wealth of timber, much of which is pine, that has already become the source of a great lumber industry. To the eastward in the re ion of Lake Nipissing, is another vast and rich timber section. It is simply nonsense to talk of lack of natural resources for traffic along that portion of the Canada Pacific between Lake Nipissing and Winnipeg. As well might we say that there were no resources for traffic for a railroad running through the mountain districts of Pennsylvania or West Virginia. There are wide areas west of the Lake of the Woods that are swampy covered mostly with tamarack, and there is a heavy growth of poplar on sections; but as the prairie country to the westward becomes settled this swamp timber will be utilized for wood pulp, railroad ties, and other purposes, and become sources of traffic.

West of Winnipeg is that vast reach of prairie land, spreading away to the Rocky mountains, 700 miles, and from the American line to beyond the North Saskatchewan, 400 or 500 miles. Nearly all this territory is good agricultural or grazing land, and will one day be completely settled with a thrifty population. Already there is a line of settlement and numerous growing towns from Winnipeg to Calgary, near the mountains. The main line of road has several branches striking out into this agricultural region, and others are projected. These serve as feeders of traffic. It is true that the country traversed by the Canadian Pacific lies in a zone of cold winter temperature yet excellent crops of wheat, rye, oats and barley are raised, while cattle do excellently well. The country lying just east of the Rocky Mountains, included in the district of Alberta, is milder than that further east; indeed, the climate there is as fine as can be found anywhere. There is nothing in the climate of the Canadian Northwest to prevent its occupation by farmers. How silly it is, then, to talk about th Canadian Pacific not having any local resources of traffic. It will not only have its home traffic, but it has already begun to capture the cattle trade of northern Montana, which naturally belongs to the Northern Pacific.

Thus we see that the Canadian Pacific begins in the populous sections of old Canada, runs through a region of vast timber and mineral resources to Winnipeg, and thence 700 miles to the Rocky mountains, through a rich prairie country, already partially settled, and destined to support at least 10,000,000 of people. What better situation for way traffic could be conceived? The farming and pastoral population of the prairie regions will want the lumber, the iron, copper, lead and building stone of the Lake Superior country, either in the raw state or manufactured. In process of time the Lake Superior and Lake of the Woods sections will become seats of great manufacturing enterprises, simply on account of the timber and mineral resources that abound in them. The prairie country will be the market for these manufactures. On the other hand the mining and manufacturing sections will want the products of the farms and the pastures to the westward. Thus an interchange of traffic must surely grow up, the like of which exists between the east and west of the northern states. It nature had planned out two sections of country on purpose for connection by railroad, a better hit could not have been made than is apparent in the situation along the Canadian Pacific.

Yet there are other advantages to be mentioned in connection with this great trans continental thoroughfare. From Calgary to Port Moody the road traverses the Rocky mountain portion of its route, which is also rich in timber, mineral and coal. The newspapers on this speak with inexcusable ignorance of this part of the route. British Columbia possesses almost countless articles of raw material that can be worked into commodities for the millions of people who will inhabit the great interior. The coast country will also become famous for its manufactures, while the market will be to the eastward, necessitating railway transportation.

Thus has been outlined the native resources for way traffic along the Canadian Pacific. Nothing has been said about through business, which all acknowledge must be immense. The endeavor has been to simply correct a misapprehension concerning t e natural advantages of the new Canada, which has been gendered of gnorance, or prompted by national prejudice. —*Northwestern Lumberman.*

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The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., DEC. 1, 1885.*


FULLY three million feet of logs will be got out of the Cypress Hills this winter.

MR. J. M. IRWIN'S Nassau Mills, near Peterborough, have closed down for the season. Mr. Irwin has about 350 men in the woods.

MESSRS. R. & G. Strickland have shut down their saw mill, at Lakefield, Ont., having finished their season's cut of lumber.

BOSTON reports more lumber selling this month than October, with less arriving from the West, giving the hope of an advance in values.

IT is stated that there are less shingles in sight along the Grand Rapids and Indiana railroad now than at any time within the past five years.

QUITE a large amount of lumber is being received at Tonawanda from Canada by rail now. This is a recent innovation, and promises to add materially to business the coming winter.

IT is expected that the Gibson tannery, in New Brunswick, will be reopened next year, when the hemlock lands on the Nashwaak will have been rendered accessible by the Miramichi Valley railway.

FORTY-FIVE square miles of timber leases were sold on Nov. 18th, at the New Brunswick Crown Lands office, one berth of six square miles on New Canaan brought $35 per mile, $17 above the upset price. There have been about 1,000 timber leases already made out.

THE little boom saw mill closed on Saturday night. It has made a full average run, and did it without serious accident to man or mill. On Friday, Mr. Gidley, the superintendent, asked the boys to hump her up a little, and see what she could do, and the result was a few hundred feet over 103,000. The highest cut for one day was 113,000 and this record would have been beaten on Friday, had not some wretched pin broke loose, and caused a delay of over an hour. —*Bobcaygeon Independent.*

THE Fredericton, N. B., *Farmer* says :—Mr. Temple, M. P., has furnished a mill site at Boiestown, adjacent to the railway, and will erect an extensive saw mill thereon. Boiestown, when the railway is completed, will become a centre of wealth and population. It will be the principal station between Marysville and Chatham, and with its proximity to the lumber lands of the Miramichi must grow rapidly. The soil in that vicinity is said to be of excellent quality, and so Boiestown may be expected to thrive agriculturally as well as otherwise.

As a result of the proposed early construction of the Buctouche and Moncton railway, Mr Alexander McLean, of Scotch Settlement, will immediately proceed with the erection of a steam rotary mill, 35-horse power, with a capacity for cutting 10,000 to 15,000 feet of lumber per day. There is an abundance of hard and soft wood timber in the Scotch Settlement, and, in fact, at many points along the proposed line, and no doubt that section of country will reap a great benefit. The timber embraces spruce, hemlock, pine, birch, beech, maple and ash, all in large quantities. The latter woods are in great favor with furniture manufacturers, and the supply in this district is so good that a prominent furniture man has intimated that a furniture factory is among the possible industries of the near future.—*Moncton Times.*

## FILING SAWS.

One of the most important things in the care of circular saws is filing.

This care is necessary for all saws. No matter of what kind or size or style this remark is applicable to them all. Saw filing is an *art* and an art that but few attain to in perfection. Saw filers may be graded about like this, good for nothing, very poor, poor, passable, fair to good, good, very good, and perfect. The last named quality is not often found. The greatest number will be found among among the classes passable and fair to good. I think more might attain to the higher grades if instead of hurrying the job through they would stop and see what they are about at every tooth they file. If there is anything in the world you need to give your whole attention to while you are about it, it is filing. No one can tell stories, or smoke, or eat apples, and file a saw well at the same time, for either one or the other will suffer very materially during the operation.

Never by any means let the file rest on the saw during the back stroke. A little pains taken for a short time will overcome the tendency to let the file rub when being drawn towards you. It spoils a file quickly, as well as indulges you in a bad habit which one cannot too quickly overcome. The saw needs to be clamped firmly just below the bottom of the teeth, so there will be no vibration of the plate when filing. The clamp needs to be the right height to fit the filer. It is a gross error to have a clamp stationary where there are several persons using it, because each person has a little difference in height, and so each person filing needs to adjust the clamp to suit himself.

Now hold the file firmly and push a good steady stroke, first filing up the front of the tooth square, keeping the file well into the bottom of the tooth to keep the length and preserve the shape, or correct a badly shaped tooth, for it is one of the good qualities of a filer to keep every tooth just alike. Avoid by all means making the saw produce the sounds represented by ky yark, ky youk, ky yick, ky yarouick yick. No screaming should ever be indulged in or allowed by a filer, and any filer that allows himself to produce those horrid unmusical sounds does not know his business.

Set that down in your note book.

Now after you have filed up the front nice, file just enough from the top to give it an edge and no more, and here also let the file go to the bottom of the tooth to keep the form good.

There are a few kinds of sawing, or perhaps I should say different kinds of sawing, usually done on the common saw table, and each kind needs a little different style of filing and setting. The first is heavy sawing, like resawing timber and splitting up heavy coarse plank for studding and general house building purposes.

For such purposes a saw tooth in all cases should be swaged. This if properly done keeps the outside point of the teeth full and sharp. Swage first and then file and then give it just a trifle of set, and everything else being equal, if a saw does not run well there's trouble somewhere. For this kind of work a tooth needs to be filed square across both front and back, and with such saws we can file all from one side. In doing this it is necessary that after one tooth is filed, the next one shall take the place of the one that has been filed.

I know it is the common custom to file up about four teeth, and then move the saw along and file four more. In doing this each one of the four teeth have a different bevel on the front side. From the position one stands in during the operation it is impossible that he should be otherwise and so we generally get about as many different bevels as there are teeth in the saw.

This is all wrong and no wonder with such filing that there are so many saws that do poor work.

Another kind of sawing is that of sawing molding stock and sawing stock for matching machines.

In this kind of work it is very seldom we need more than a 12 or 14 inch saw, and a 12 gauge saw with 20 teeth is about the style that is wanted. For this work we should file square across on the fronts, and drop the hand a little on the back of the tooth, so as to give the edge of the tooth a slight bevel and set the saw just enough to clear nicely and no more.

A very nice swage for this kind of saw is a great help to keep the outside points full and sharp. For common rough sawing there is not that positive necessity of keeping a saw in perfect set, but in sawing molding strips the smoother the stuff is sawed the less stock it takes to finish it up with the molding machine.

For this work the saw should be filed from both sides, and set only enough to clear the saw, using a swage [very nicely made] with care to keep the outside points full and sharp.

One more specialty in sawing which calls for nice filing is line sawing. This is largely found in what is generally called carriage sawing. This takes in sawing for all kinds of vehicles, light or heavy, drawn by horses. Everything for this work is marked out from patterns either by pencil or timber scrimb, and many of the lines are straight and the circular saw economizes the work very much. I will say here, however, that since the band saw came into so general use the most of such work is done with the band saw.

To be a good line sawyer it need a large practice and a good knowledge of keeping a saw in first class order. As far as I know, most of the sawyers doing this kind of work file square front and back, and file all from one side, using very little set. Line sawing is a specialty, and a good line sawyer either in carriage or car works ought to be prized. One more specialty and I will close the chapter : clock sawing is a specialty by itself and perhaps there is no kind of sawing in the country that demands and receives such close attention as what we know as clock sawing.

In this work the teeth are filed moderately hooking and very fleaming. The points of the teeth are like needles. They are kept perfectly round and in perfect set, the set being so little that the eye hardly detects it. Everything is made from perfectly dry stock, and it is all short work ; it is wonderful to see to what perfection sawing can be brought with the advantage of having all clean dry stock, kiln dried to perfection.

There are but few, however, that can so trust their eyes.—*J. F. Langdon in Cabinet Making.*

## MORE HEAVY PINE SALES.

This week another big pine deal was closed in Muskegon, this time Torrent & Ducey being the sellers, and C. H. Cook, of Montague, and W. C. Wilson, of Michigan City, being purchasers. The transfer includes about 23,000 acres, estimated to cut 120,000,000 feet of pine, situated in Chippewa county, in the Upper Peninsula. The consideration is $150,000. Mr. Cook will very shortly go up north and begin the erection of a mill which will be ready for work at the opening of next season. The mill will be located near Life Saving Station No. 12 on the south shore of Lake Superior. The foregoing is from the Muskegon *Chronicle*, which also contained the following :

"This makes the fourth sale," said Mr. Torrent, "that we have made from this upper peninsula land this season, in all amounting to over $ 00,000. Torrent & Ducey have also recently sold one third of their 31,000 acre tract in Franklyn County, New York, the price paid being $83,000. In all we have sold something like $435,000 worth of standing pine this season."

"You have been making some heavy purchases also?"

"Yes, we have been buying more or less all the year. I presume the firms here that I am interested in have bought something like $550,000 worth of pine this year. The J. H. Moores and the Manistee tracts were the heaviest, but we have been picking up a number of smaller lots."

"How does the price of stumpage this year compare with last year's?" we asked.

"Well, in the lower peninsula I should say it is a good round dollar a thousand higher than last year. In the upper peninsula it has advanced but not so much."

"Torrent & Ducey bought this upper peninsula land some years ago," we remarked.

"Yes," said Mr. Torrent, "I think we bought that in '81. We did not get it direct from the Government. It had been bought up several years before. I think we paid about $4 an acre for it. Cook & Wilson have made a good bargain. It will overrun the estimate on stumpage. If we wanted to manufacture the lumber up there we wouldn't have thought of selling—not at least at the price we get. That northern pine is not quite so good as the timber up this river, but it is very good, some of it is excellent."—*Lumberman's Gazette.*

## GLASGOW.

The *Timber Trades Journal* of Nov. 14th says :—The cargoes at present being landed here, included in the last whek's import list, consist chiefly of lower port spruce deals, which appear mostly sound and clean. Some of them no doubt will go into use for goods, packing cases, being a quality of goods suiting admirably for the purpose. There have been during the week no further arrivals of steamers per steam liners from Quebec and Montreal, and the import may be considered as almost closed for the season. The week's import at Greenock have been two cargoes of pitch pine and one of greenheart.

The sale at Yorkhill, on 5th inst., was attended by rather a small company of buyers. The catalogue comprised a large assortment of pine and spruce deals, and, compared with quantity offered, the proportion sold was small. Still a good many lots were disposed of, and there was bidding for other lots, but being under broker's limits, the goods were withdrawn.

We have to note that there is no mahogany here in first hands at present.

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c measured and culled to date :—

| | 1883. | 1884. | 1885. |
|---|---|---|---|
| Waney White Pine.. | 3,781,742 | 2,198.547 | 2,876,753 |
| White Pine..... | 7,405,523 | 3,707,159 | 2,820,045 |
| Red Pine..... | 498,111 | 327,735 | 73,766 |
| Oak ..... | 1,916,322 | 772,260 | 1,566,968 |
| Elm ..... | 309,531 | 657,919 | 1,018,932 |
| Ash ..... | 262,448 | 451,984 | 287,595 |
| Basswood ..... | 2,244 | 4,544 | 95 |
| Butternut ..... | 1,118 | 2,134 | 3,265 |
| Tamarac ..... | 37,736 | 19,289 | 3,622 |
| Birch & Maple..... | 138,803 | 202,446 | 381,085 |
| Spars ..... | — pcs | 41 pcs | 17 pcs |
| Std. Staves..... | 680.4.3.26 | 93.6.1.12 | 144.2.1.10 |
| W. I. Staves..... | 663.3.3.21 | 260.8.0.19 | 185.9.3.25 |
| Brl. Staves..... | 115.7.0.15 | 9.7.1.0 | 209.2.0.24 |

JAMES PATTON,
Quebec, Nov. 20. Supervisor of Cullers.

## LIGHT FROM WATER POWER.

The beautiful falls of Montmorency, one of the chief points of interest to the tourist visiting Quebec, are to be utilized for a novel purpose, that of generating electricity for lighting Quebec. The water is led from the river above the falls, through a sluiceway, to the edge of a

# HARRIS, HEENAN & Co.

124 AND 126 QUEEN STREET, - - MONTREAL.

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

TESTIMONIAL

IRA GOULD & SONS, CITY MILLS, Nov. 18th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS,—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the Cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Mills.

TESTIMONIAL.

PECK, BENNY & CO., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 15th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT,
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original width.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

## 25 per cent Stronger, 33½ More Lasting, and 12⅓ Heavier, than any other Leather Belt.


precipice, 165 feet high, and from here through a tube to the base. The lower three-fourths of this tube is made of quarter-inch boiler plate iron, the upper fourth of three-inch plank. The tremendous pressure exerted by this column of water, 165 feet high and 24 inches in diameter at its base, will turn a turbine wheel at the rate of 600 revolutions per minute, giving a force of 900 horse power. This is transmitted almost direct to eight dynamos on the floor above, and from these sufficient electricity will be generated to light 800 arc lamps in Quebec, seven miles distant. The apparatus is very ingenious and extremely strong, and will probably be a great success. There is only one other place in Canada—Ottawa—where any thing of the kind is in use. Even now the process is in use at Montmorency, in Mr. Hall's lumber mills, where nine lights are run by a turbine eight inches in diameter, having a force of six hundred horse power. The tremendous pressure is shown when Mr. Hall turns on a hydrant, letting out a huge stream of water with a deafening roar. Pipes are led through the lumber yard, into which water can be turned at a moment's warning and flood the entire place. The lumber mills themselves are run by power from the falls.—*Exchange.*

### NEW YORK.

The *Record and Guide* of Nov. 21st says: There seems to be a considerable amount of irregularity in the form of business; some operators complaining seriously, and others making quite a cheerful report. Yard prices are nominally unchanged, but in a general way tend to steadiness at present. Advices from the interior have a firmer tone generally, but show less of the positively bouyant characteristics usual at this season of the year.

Eastern spruce really shows nothing of an unusual character. Prices on the average range are different from those current on actual sales for two or three weeks past, and $13 to $15 is a good general quotation for random, but with fewer shadings of the inside figure likely and the extreme more frequently exceeded on something extra. Special reach out one $1 to $1.50 to $2.00 per M higher, and are not easy to place; owing to the reduced productive capacity, and the indisposition of St. John manufacturers to cut in this way.

White pine has more or less demand for consumption on all the natural local outlets, and some dealers report a considerable amount of animation in the distribution necessary to fill fill their orders. Exporters, too, are fairly represented, but continue to divide their custom somewhat; and this occasionally leads to a little grumbling from quarters formerly accustomed to monopolize most of the foreign trade. There is a great deal of unloading and piling yet to be done before the supplies are all taken care of. We quote at $15.50 to $18.00 for West India shipping boards; $25 to $29 for South American do.; $12 to $15 for box boards, and $16 to $18 for extra do.

Yellow pine is still reported upon in a somewhat irregular manner, with a general tendency to adhere to the old slow and unpromising statements regarding the balance of this year at least. We quote as follows: Randoms, $17.50 to $19.50 per M; specials, $19.50 to $21, do.; green flooring boards, $20 to $22; dry do. do., $23 to $26; sidings, $20 to $22 do.; cargoes f.o.b. at Atlantic ports, $13 to $15 for rough and $18 to $20 for dressed; cargoes f.o.b. at Gulf ports, $12 to $14 rough and $19 to $21 for dressed.

Hardwoods appear to be kept in very good form. There is the stereotyped and, to a great extent, justifiable complaint about difficulty in finding a first hand offering "in just the right shape," but as shippers from the interior have no fixed standard to work upon, it is impossible for them to close adjust their consignments to the numerous necessities of this market, and they simply do the best they can. Sometimes the result is very unsatisfactory; but anything that is attractive and useful generally finds a place at steady prices. Chioce export assortments continue in fair favor. We quote wholesale rates by car load as follows: Walnut, $65 to $110 per M; white ash, $33 to $40 do.; oak, $30 to $55 do.; maple $20 to $32 do.; chestnut, $28 to $34 do.; cherry, $70 to $90 do; whitewood, $28 to $35 do.; elm, $20 to $23 do.; hickory, $42 to $55 do.

### BRICK MADE FROM SAWDUST.

It may have been noticed, says the Muskegon *Chronicle*, that during the latter part of marine navigation, considerable sawdust was shipped from this port to Chicago, by Gow & Major. There is a firm in Chicago, with a large capital stock, making brick from this sawdust. We were shown one of these yesterday. The bricks are made of sawdust and clay, subject to a great pressure; are burned as are ordinary bricks and rendered fire proof. They are in size 13x6x4 inches, and have two square inch holes lengthwise through their body, thus making them but little heavier than ordinary bricks, but extending over four times the amount of space. They are made to stand upright between the outer and inner coats of the wall, thus making the house warmer as well as fire proof.

### A GROWING INDUSTRY.

The *Sherbrooke Gazette* says:—We are much impressed with the rapid growth which is taking place in industrial pursuits by a recent visit to Thompson & Co's. Bobbin and Spool Works on Factory Street. This is a special trade and we had been under the impression that it was a small one. We were agreeably enlightened. Situated in the upper storey of Twoses Factory, the large wheels, the numerous belts, the extensive array of machines used in the trade and the busy aspect of the workmen, all convinced us that a large business was being carried on. Some ten or twelve workmen are constantly engaged and the amount of work done is considerable.

The creditable exhibition made by this firm at the recent exhibition had already led us to believe that the work executed by them was first-class, but we confess we were astonished at seeing the numerous patterns of spools, bobbins and other implements used in cotton and woolen mills and kindred establishments, all made, and from which orders are filled by this firm. The wood used is the best yellow birch; the work is of the best, and the growing favor shown to articles turned out by them is a proof of their skill and care.

### MAINE.

Indications point to unusually heavy lumbering operations in Maine woods during the coming winter. Already large crews have left for the scene of operations and many others are busily preparing to start. While this situation is true generally throughout Maine, it is notably so on the Penobscot, where the loggers are leaving for the northern forests in greater numbers than for years past. An extensive operator informs us that with a favorable winter the cut on the West Branch will be a third larger than that of last year. The incentive of increased operations lies in the general hopeful feeling with regard to next season's trade, coupled with the facts that supplies were never lower and labor is reasonable, while logs have brought good prices during the past season and the quantity to be wintered over is not large.—*Industrial Journal.*

### Rafts Entered at the Supervisor of Cullers' Office Quebec.

Oct. 20.—R. R. Dobell & Co., hemlock lathwood, Hadlow cove.

Oct. 22.—Flatt & Bradley, barrel staves, Sillery.

Oct. 23.—John Roche, deals, Garthly Mills.

" 26.—Collins Bay R. & T. Co., two drams, sundry coves.

Oct. 26.—Burton Bros, pine, Sharples' (Sillery.)

Oct. 28.—Fraser & Serenens, white and red pine, St. Lawrence Docks.

Oct. 31.—Kelsey & Leonard, four cribs of staves, Bowen's cove.

## RULES FOR MANAGEMENT AND CARE OF STEAM BOILERS.

The following summary is issued by the Hewes & Phillips Iron works, of Newark, N. J., and it comprises useful information to all in charge of engines:

"The first duty of an engineer, when he enters his boiler-room in the morning, is to ascertain how many gauges of water there are in his boilers. Never unbank nor replenish the fires until this is done. Accidents have occurred and many boilers have been entirely ruined from neglect of this precaution.

"In case of low water, immediately cover the fires with ashes, or, if no ashes are at hand, use fresh coal. Do not turn on the feed under any circumstances, nor tamper with or open the safety-valve. Let the steam outlets remain as they are,

"In cases of foaming, close throttle and keep closed long enough to show true level of the water. If that level is sufficiently high, feeding and blowing will usually suffice to correct the evil. In cases of violent foaming, caused by dirty water, or change from salt to fresh or vice versa, in addition to the action before stated check draft and cover fires with fresh coal.

"When leaks are discovered they should be repaired as soon as possible.

"Blow off 8 or 10 inches at least once a week; every Saturday night would be better. In case the feed becomes muddy, blow out six or eight inches every day. Never blow entirely off except when boiler needs scraping or repairing, and then not until fire has been drawn for at least ten hours, as boilers are often seriously injured or ruined by being emptied when the walls are hot. Where surface blow-cocks are used, they should be often opened for a few moments at a time.

"After blowing down allow the boiler to become cool before filling again. Cold water, pumped into hot boilers, is very injurious from sudden contraction.

"Care should be taken that no water comes in contact with the exterior of the boiler, either from leaky joints or other causes.

"In tubular boilers the hand-holes should be often opened, and all collections removed from over the fire. Also, when boilers are fed in front and blown off through the same pipe, the collection of mud or sediment in the rear end should be often removed.

"Raise the safety-valves cautiously and frequently, as they are liable to become fast in their seats, and useless for the purpose intended.

"Should the gauge at any time indicate an excessive pressure, see that the safety-valves are blowing off. In case of difference, notify the the parties from whom boiler was purchased.

"Keep gauge-cocks clear, and in constant use. Glass gauges should not be relied on altogether.

"When a blister appears there must be no delay in having it carefully examined, and trimmed or patched, as the case may require.

"Particular care should be taken to keep sheets and parts of boiler exposed to fire perfectly clean, also all tubes, flues, and connections, well swept. This is particularly necessary where wood or soft coal is used for fuel.

"Under all circumstances keep the gauges, cocks, etc., clean and in good order, and things generally in and about the engine and boiler-room in a neat condition.

"Barium chloride, and milk of lime are said to be used with good effect at Krupp's Works, in Prussia, for waters impregnated with gypsum.

"Soda ash and other alkalies are very useful in waters containing sulphate of lime, by converting it into a carbonate, and so forming a soft scale easily cleaned. But when used in excess they cause foaming, particularly where there is oil coming from the engine, with which they form soap. All soapy substances are objectionable for the same reason.

"Petroleum has been much used of late years. It acts better in water in which sulphate of lime predominates. As crude petroleum, however, sometimes helps in forming a very injurious crust, the refined only should be used.

"Rogers' tannate of soda is probably the best preparation for general use, but in waters containing much sulphate, it should be supplemented by a portion of carbonate of soda or soda ash.

"For muddy water, particularly if it contain salts of lime, no preventive of incrustation will prevail except filtration and in almost every instance the use of a filter, either alone or in connection with some means of precipitating the solid matter from solution, will be found very desirable.

"In all case where impure or hard waters are used, frequently blowing from the mud-drum is necessary to carry off the accumulated matter, which if allowed to remain would form a scale."

## COOPERAGE.

It was not till the Christian area that mankind learned to make casks of wood. The ancient Greeks knew not the convenience of a wooden barrel; nor the Romans till after the time of Julius Cæser. Jars of earth dried in the sun, or burned with fire, made by the potter, answered all the purposes of the modern hogshead, as witnessed the jars in which the forty theives were hid. For portable kegs they used earthen bottles and sacks made of the hide of animals. The Kelts, dwelling in the forests, made use of tree trunks, hollowed by the decay of the heart growth, which they set upon flat stones, and filled with their harvested grain. As these split they learned to repair by slipping over them rings of other trunks. From this practice they gradually reached the art of making conic boxes, of straight flat sides, hooped in the same way, and tightened by wedges. The Kelts in Great Britain early attained a great skill in the manufacture of these wooden vessels, and the modern art of cooperage reached a high degree of perfection among them. From a very early date, the occupation of the cooper has been divided into several distinct branches The dry cooper makes casks for holding all sorts of goods in a dry state, as grains, sand, flour, etc The tight cooper makes casks or barrels, for liquids, water, etc. There are also general coopers, who prefer to undertake all kinds of work; but, to become a skillful cooper, it is necessary to confine attention and practice to one branch of cooperage, that the workman may be practically familiar with every detail.

In England, and indeed throughout Europe, staves and heads are made almost exclusively. The great abundance of other suitable woods has given the American cooper a wider range of stock. The ash and white pine here furnish a greatly superior wood to their brothers. To-day the preparation of the staves and heads is principally conducted in the country, where wood it cheaper and labor reasonable. Whole communities, as Townsend, Mass., Brookline, Milford, and Henniker, N. H., are devoted almost exclusively to this business.—*Cooper's Journal.*

## HINTS ON THE CARE OF TOOLS.

The following hints on the best means of keeping tools in good condition, are from the *Building and Engineering Times*, of London:

WOODEN PARTS.—The wooden parts of tools, such as the stocks of planes and handles of chisels, are often made to have a nice appearance by French polishing; but this adds nothing to their durability. A much better plan is to let them soak in linseed oil for a week, and rub them with a cloth for a few minutes every day for a week or two. This produces a beautiful surface, and at the same time exerts a solidifying and preservative action on the wood.

IRON PARTS.—Rust preventive.—The following receipts are recommended for preventing rust on iron and steel surfaces:

1. Caoutchouc oil is said to have proved efficient in preventing rust, and to have been adopted by the German army. It only requires to be spread with a piece of flannel in a very thin layer over the metallic surface, and allowed to dry up. Such a coating will afford a security against all atmospheric influences, and will not show any cracks under the microscope after a year's standing. To remove it, the article has simply to be treated with caoutchouc oil again, and washed after 12 to 24 hours.

2. A solution of India-rubber in benzine has been used for many years as a coating for steel, iron and lead, and has been found a simple means of keeping them from oxidizing. It can be easily applied with a brush, and is easily rubbed off. It should be made about the consistency of cream.

3. All steel articles can be perfectly preserved from rust by putting a lump of freshly-burnt lime in the drawer or case in which they are kept. If the things are to be moved (as a gun in its case, for instance), put the lime in a muslin bag. This is especially valuable for specimens of iron when fractured, for in a moderately dry place the lime will not want any renewing for many years, as it is capable of absorbing a large quantity of moisture. Articles in use should be placed in a box nearly filled with thoroughly pulverized slaked lime. Before using them, rub well with a woolen cloth.

4. The following mixture forms an excellent brown coating for protecting iron and steel from rust: Dissolve two parts crystalized iron chloride, two antimony chloride, and one tannin, in four water, and apply with a sponge or rag, and let dry. Then another coat of the paint is applied, and again another, if necessary, until the color becomes as dark as desired. When dry it is washed with water, allowed to dry again, and the surface polished with boiled linseed oil. The antimony chloride must be as nearly neutral as possible.

5. To keep tools from rusting, take ½ once camphor, dissolve in one pound melted lard; take off the scum and mix in as much fine black lead (graphite) as will give it an iron color. Clean the tools and smear with this mixture. After 24 hours rub clean with a soft linen cloth. The tools will keep clean for months under ordinary circumstances.

6. Put 1 quart of fresh slaked lime, ½ pound washing soda, ½ pound soft soap in a bucket, and sufficient water to cover the articles; put in tools as soon as possible after use, and wipe them up next morning, or let them remain until wanted.

7. Soft soap, with half its weight of pearl-ash, 1 ounce of mixture in about 1 gallon boiling water, is in every day use in most engineers' shops in the drip cans used for turning long articles bright in wrought iron and steel. The work, though constantly moist, does not rust, and bright nuts are immersed in it for days till wanted, and retain their polish.

8 Melt slowly together six ounces or eight ounces lard to one ounce resin stirring till cool; when it is semi-fluid, it is ready for use. If too thick, it may be further let down by coal oil or benzine. Rubbed on bright surfaces ever so thinly it preserves the polish effectually, and may be readily rubbed off.

9. To protect metals from oxidation—polished iron or steel, for instance—the requisite is to exclude air and moisture from the actual metallic surface; wherefore, polished tools are usually kept in wrappings of oil cloth and brown paper; and, thus protected, they will preserve a spotless face for an unlimited time. When these metals come to be of necessity exposed, in being converted to use, it is necessary to protect them by means of some permanent dressing; and boiled linseed oil, which forms a lasting film of covering as it dries on, is one of the best preservatives, if not the best. But in order to give it body, it should be thickened by the addition of some pigment, and the very best—because the most congenial—of pigments is the ground oxide of the same metal—or in plain words, rusted iron reduced to an impalpable powder, for the dressing of iron or steel—which thus forms the pigment or red oxide paint.

10. Slake a piece of quick lime with just water enough to cause it to crumble, in a covered pot, and while hot add tallow to it and work into a paste and use this to cover over bright work; it can be easily wiped off.

11. Olmstead's varnish is made by melting 2 ounces resin in one pound of fresh sweet lard, melting the resin first and then adding the lard and mixing thoroughly. This is applied to the hmetal, wich should be warm if possible, and perfectly cleaned; it is afterwards rubbed off. This has been well proved and tested for many years, and is particularly well suited for planished and Russia iron surfaces, which a slight rust is apt to injure very seriously.

RUST REMOVERS.—1. Cover the metal with sweet oil rubbed in, and allow to stand for 48 hours; smear with oil applied freely with a feather or piece of cotton wool, after rubbing the steel. Then rub with unslaked lime reduced to as fine a powder as possible.

2. Immerse the article to be cleaned for a few minutes, until all the dirt and rust is taken off in a strong solution of potassium cyanide, say about ½ ounce in a wineglassful of water, take it out and clean it with a tooth brush with some paste composed of potassium cyanide, Castile soap, whiting and water, mixed into a paste of about the consistency of thick cream.

## QUEBEC.

The *Chronicle* of Nov. 7th says:—The large sale of timber referred to in our last Friday's issue was a very prime raft manufactured by Mr. McCann, and comes from French River, Georgian Bay; it was sold to Messrs. McArthur Bros., and consists of 150,000 feet of square white pine, 65 feet average, with about 50 000 feet of waney board of 20 inch average girth. The price, we are informed, was equal to 34½ to 35 cents all around.

About eighteen thousand standard of first quality spruce ex ship President, loaded at Batiscan, were sold at $53 f.o.b. ship. Fifty-two per cent. are oddments and 30 per cent. 11 inch.

**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhœa, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the prescription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

## LIVERPOOL STOCKS.

We take from the *Timber Trades Journal* the following Comparative Table showing Stock of Timber and Deals in Liverpool on Nov. 1st 1884 and 1885, and also the Consumption for the month of Oct. 1884 and 1885:—

| | *Stock, Nov. 1st. 1884.* | *Stock, Nov. 1st. 1885.* | *Consumption for the month of Oct. 1884.* | *Consumption for the month of Oct. 1885.* |
|---|---|---|---|---|
| Quebec Square Pine | 345,000 ft. | 286,000 ft. | 253.000 ft. | 306,000 ft. |
| " Waney Board | 529,000 " | 468,000 " | | |
| St. John Pine | 33,000 " | 32,000 " | 30,000 " | 1,000 " |
| Other Ports Pine | 70,000 " | 59,000 " | 6,000 " | 11,000 " |
| Red Pine | 58,000 " | 32,000 " | 2,000 " | 1,000 " |
| Pitch Pine, hewn | 548,000 " | 510,000 " | 58,000 " | 58,000 " |
| " Sawn | 432,000 " | 672,000 " | 123,000 " | 223,000 " |
| Planks | 55,000 " | 104,000 " | 13,000 " | 41,000 " |
| Dantzic, &c., Fir | 99.000 " | 57,000 " | 49,000 " | 17,000 " |
| Sweden and Norway Fir | 70,000 " | 58,000 " | 27,000 " | 9,000 " |
| Oak, Canadian and American | 362,000 " | 361,000 " | 89,000 " | 86,000 " |
| " Planks | 182,000 " | 207,000 " | 57,000 " | 57,000 " |
| " Baltic | 9,000 " | 5,000 " | 0,000 " | 0,000 " |
| Elm | 36,000 " | 52,000 " | 12,000 " | 19,000 " |
| Ash | 36,000 " | 32,000 " | 14,000 " | 8,000 " |
| Birch | 73,000 " | 185,000 " | 66,000 " | 139,000 " |
| East India Teak | 38,000 " | 133,000 " | 33,000 " | 2,000 " |
| Greenheart | 31,000 " | 117,000 " | 5,000 " | 2,000 " |
| N. B. & N. S. Spruce Deals | 31,897 stds | 23,007 stds. | 0,000 stds. | 0,000 stds. |
| " Pine | 1 160 " | 245 " | 6,315 " | 7,129 " |
| Quebec Pine Deals & boards | 9.446 " | 8,150 " | 2,533 " | 4,072 " |
| Do. Spruce | 823 " | | | |
| Baltic Red Deals, &c | 3,701 " | 4,473 " | 857 " | 1,330 " |
| Baltic Boards | 40 " | 310 " | 27 " | 56 " |
| " prepared Flooring | 2,975 " | 2,148 " | 894 " | 731 " |

# Chips.

THE Rathbun Company, of Deseronto, manufacture a disinfectant from sawdust.

BUILDING is active at Calgary, N. W. T, but contractors complain of a lumber famine.

THE Sturgeon-River Lumber Company, upper peninsula, Mich., has this season shipped over 10,000,000 feet of deals to French & Co., Quebec.

KENNEBEC river, Me., lumbermen estimate that the cut of logs on that stream and tributaries this season will exceed the amount put in last winter by 20,000,000 feet.

THE schooner Nellie Starr, from St. John, N. B., arrived at Philadelphia, November 6th, after fighting her way through gales which swept away part of her deck load of spruce.

THE schooner Stephen J. Walls, from Apple river, N. S, for New York, arrived at Vineyard Haven, November 6th, having lost part of her deck load of lath during a heavy gale November 2nd.

EARNEST RICHARDS, of Three Rivers, Canada, on his way to enter the employment of Wright & Ketcham in Midland county, Mich., was killed in a railroad accident on that firm's logging railroad, near Averill.

THE Governors of the Northern States are invited to attend the Southern State Forestry Congress which assembles at Defuniak Springs, Fla, in December to participate in the ceremony of planting and dedicating trees to all the States.

JOHN ARNOLD, employed in Major Walker's mill, Calgary, Alberta, was caught by the feed belt and pulled through a revolving metal pulley. His face was split through his forehead, nose and lips. It was thought that he would recover.

CANADIANS seem to be particularly unfortunate in the lumber camps. John Flood, from Caledonia Springs, Ont., is the latest victim. He was employed by the Thayer Lumbering Co. and was killed on Nov. 12th at Lake City by a log rolling on him.

THE following changes in Quebec firms are announced:—Dissolutions—D. & J. Maguire, merchants and shipowners; James A. Maguire and Charles Maguire, partners. Hall Brothers & Co, lumber merchants &c., Quebec; P. P. Hall, G. B. Hall, W. C. Hall, H. M. Price and Luis F. Peters, partners.—New firms—G. B Hall & Co merchants and lumber manufacturers; G. B. Hall, W. C. Hall, and Alfred E. Hall, partners. Hall, Brothers & Co., lumber manufacturers and merchants; P. P. Hall, Herbert M. Price, and Louis F. Peters, partners.

## PRACTICAL ITEMS.

Rock or sugar maple is the best material for making water-wheel steps. The logs are cut, and either shaped into steps roughly or cut into conveniently sized blocks. The sap must be removed by soaking in fresh running water. A practical millwright cuts a lot of maple and dumps it into the millpond until wanted, when it may be turned to size and put under the wheel before it has time to dry or shrink. For new wheels shipped to a distance, the maple, which has first been water-seasoned and dried, should be turned to size and boiled in a kettle of tallow for a number of hours. Drying maple, which must wear out under water, has an injurious effect upon it. The complaint of steps wearing "down stream," or in the direction of the water pressure, is caused by the wheel being out of balance, or the wheel being crooked, or both.

If the wood-screw be too loose in the hole where inserted, and the sawing machine table, or other article of furniture, needs to be hastily repaired, with no glue at hand, insert a soft pine stick a little less inside than the hole for the screw, and fill the rest of the cavity with powdered resin. Heat the screw sufficiently to melt the resin as it is being turned in with the crew-driver.

The great trouble in drying lumber quickly has been the tendency to form a hard shell on the outer surface before the interior saps have been vaporized, this hard shell preventing the escape of the sap. To overcome this difficulty a new lumber drier heats the wood to a temperature of 225 deg., to 250 deg., where it is allowed to remain two or three hours, when steam is shut off and the temperature of the wood is reduced to about 100 deg., either by cold water or cold air. It is then reheated and cooled as above, the operation being repeated until the lumber is thoroughly seasoned.

In putting on leather belts always place the rivet head side to the pulley, and for rubber belts place the seam side out or away from the pulleys. Never on a rubber belt. If it is a new one, it will cause the rubber to stick and accumulate on the pulleys, and eventually ruin the belt, and further, when resin has applied for some time it will form a glazed, hard surface, causing the belt the belt to slip out more than it did before the application was made If a leather belt gets too dry, use tallow or a mixture of castor oil and tallow. Watch the lacings closely, and when you find one giving way, relace it immediately.—*Saw Mill Gazette.*

## RAPID ADVANCE IN PINE LANDS

The advance in the price of pine stumpage during the past decade has been most wonderful and very many men who owned interest in pine lands, which not many years ago were considered of no extraordinary value, have found themselves the possessors of bonanzas which made them immensely wealthy. The rich men of the Saginaw valley to-day are those who "doubled" in pine lands, and those men living outside the valley who have speculated in pine, have made greater progress on the road to wealth than those in any other legitimate investment. A most remarkable instance demonstrating the correctness of the above idea is found in the transfer of the timber and plant of Swan, White & Smith, at Muskegon, which was accomplished through the agency of Don J. Leathers, of Grand Rapids, who sold this tract of pine for the late S. N. Wilcox, of Chicago, sir years ago, for $155,000. Swan, White & Co. have since cut 40,000,000 feet from the tract and now have 80,000,000 feet left, which with their saw mill and one-half interest in the logging railroad, they sell for $425,000 to the Thayer Lumber Company. It has been altogether a grand speculation for those interested, and Mr. Leathers may also be complimented for his connection with the transaction. —*Lumberman's Gazette.*

### Catarrh—A New Treatment.

Perhaps the most extraordinary that success has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still, No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure. the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

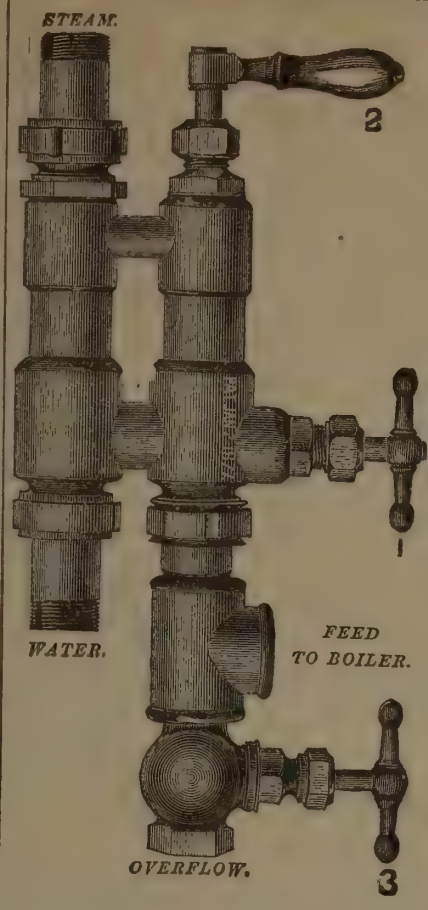

## FOR SALE, TIMBER LIMITS & SAW MILL

THE MASKINONGE LUMBER COMPANY offer for sale their property consisting of Saw Mill at Maskinonge Bridge, P. Q., with n quarter mile of N. S. Ry. Station, also good facilities for shipping by water. Capacity of Mill 50,000 feet per day. water and steam power; saws and belting all complete. Two hundred and forty square miles of limits situated about thirty miles from Mill, which are interseeted by a number of good driving streams, and are rich in Pine. Spruce, Cedar, etc. Satisfactory reasons for selling out.

For further particulars apply to

MASKINONGE LUMBER CO.

6L15 Maskinonge Bridge P. Q

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**Best Feeder known for Stationary, Marine or Locomotive Boilers.**

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**All sizes lift water 25 feet.**
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A FULL LINE of all Size Single and Double Belting constantly in stock.

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WARE ROOMS

## 86 King Street East

*Factory and Warerooms:—2518, 2520 and 2522, Notre Dame Street.*

## MONTREAL, QUE.

## Axes & Cross-Cut Saws.

CANADIAN AXES.

Both inlaid and overlaid steels, 10 patterns, from $7.00 upwards per dozen.

AMERICAN AXES.

Both inlaid and overlaid steels. eight patterns, from $10.00 upwards per dozen.

SILVER STEEL LANCE-TOOTH CROSS-CUT SAWS.

Warranted to be good temper or will be replaced. Special three square and extra fine cut flat files for these saws.

BLOCKING AND BROAD AXES

Of extra shape and quality. Samples of axes and saws sent to any address on approval and for selection.

## Geo. Stethem

Importer of Heavy and Shelf Hardware. Sole Agent for the B-I-Any Axe. 6L17

## FILES- Now's the Time

Collect and Ship them to be

RE-CUT

BEFORE THE SPRING OPENS.

DO NOT WASTE

Your Money on Buying new, when the old ones will do. We pay Freight one way,

SHIP THEM TO-DAY

—TO THE—

## ONTARIO FILE CO.

150 FRONT STREET, EAST, TORONTO.
Agents Wanted Everywhere. 12L6

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

Nov. 23.—The continued mild weather is prolonging the period of building operations much later than last fall, and the result is favorable to all dealers in building materials. Some few cargoes will also leave our docks yet. Shipments, however, fall considerably short of that of 1884, and, as before remarked in previous letters, this was to be expected, as, unless a much larger quantity of our coarser grades moved off this season than formerly, we had not a sufficient quantity of the better grades to bring up shipments to that of last year. The following statement of the quantity shipped from the docks and sold on our local market is as near as it is possible to arrive at :—

| | |
|---|---|
| Over rail of vessels | 25,139,000 feet |
| Sold on home market | 69,500,000 " |
| Hardwoods | 429,000 " |
| Basswood | 1,150,000 " |
| Sawn lath | 6,000,000 pcs. |
| Sawn Shingles | 7,500,000 " |

The above will show a total falling off of about 7,000,000 feet of pine lumber, but the decrease is in shipments, which is about 13,000,000 below that of last year, so that our local consumption will show quite a considerable gain, especially when we take into account the fact that the adjoining municipality of Parkdale was included in last year's statement, and this year the railroad station there was made an outside station, and therefore shipments to that place are not included in the present one, so that some 4,000,000 feet more may be safely added to the above, as much the larger part of the shipments to that station are consumed in the city proper. There is also another factor to be taken into consideration as going to swell up the total amount of lumber used here, and that is the quantity landed on our docks and consumed with the rest. So that I have no hesitation in placing the total amount used up in the city this season at 75,000,000 feet. The decrease in the quantity of cedar used is due to the fact that less miles of pavement have been made this season ; but the season's trade on the whole may be taken as fairly satisfactory, although the entire year's sales have been made on low margins, but few complaints are made by retailers es to difficulty in collecting for sales made.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 00 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

| B. M. | |
|---|---|
| 1¼-inch flooring, dressed | 25 00@30 00 |
| 1¼ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1½ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ⅞ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ℔ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## OTTAWA.

*From Our Own Correspondent.*

Nov. 24.—What shall be the outcome of the present political crisis, and what shall be its bearing on the lumbering industries of this country, are questions quite pertinent to the hour. A change of Ministry from Conservative to Reform might mean much as to the tariff ; might mean much as to the commercial policy affecting the Dominion. Many lumbermen here express a fear that should the present Government be defeated this coming session, it would have a serious effect on the manufacture of lumber, inasmuch as it would tend to unsettle the present state of things, and would make capitalists more cautious in making investments. But of course all is conjecture as yet, and though some claim to see a cloud gathering which might prove detrimental to the staple of the Ottawa Valley, there is room for the belief that it will in no way effect the promising prospect of the trade.

Lumbermen from many points on the Upper Ottawa speak of the present fall weather as exceptionally good for operations in the woods and that things are going on most satisfactorily. Owners of limits are extending more this year than ever in entrusting log cutting contracts to jobbers, claiming that the work can be done much cheaper by this method than if the operations were carried on solely by themselves. They hold that there is less waste of timber, and that the logs are cut and laid up ten per cent. cheaper than by themselves hiring the men to direct operations. From this it can be plainly seen that more logs can be cut, at a less expense, and with more economy in the matter of waste, and the limit holders are pursuing a policy which will in the end act beneficially towards the trades. Another thing which has been generally adopted within the last few years, is the employment of careful men by many lumbering firms, whose duty it is to see that no fires occur, which can at all be possibly prevented. As the great slayer of the forests has after all been the fires which periodically occur this vigilance will bring about good results. The fact of the matter is that the lumbermen themselve feel that they must take direct and prompt steps in this matter themselves if their source of wealth is to be preserved, and not wait for legislative action. This is a step in the right direction and recommends itself to everyone who knows the immense havoc that has been committed in the past by the carelessness in setting out fires. The saw mills at the Chaudiere are still in full blast, and though it was expected that they would have ceased operations before this, the owners have determined to take advantage of the present open weather and keep the mills going until the severe weather compels them to stop.

## OSWEGO, N.Y.

*From Our Own Correspondent*

Navigation may be considered closed for the season ; dealers all have an abundant supply ; the assortment is good in everything except 1x10 stocks, which is very light ; demand still continues very slow and no change in quotations.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1½ in. strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1½, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Common | 18 00@24 00 |
| Culls | 10 00@13 00 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of Nov. 21st says :—Cargoes to the number of 168 figured in the port list for the week ending Wednesday. This may be considered a large fleet for the last half of November. Receipts thus far this month have been fully as large as in November, 1884, and for one week, at least, larger. Last year at this time late cargoes were brought in on account of the rush to Missouri river points, out of the yards, on a cut freight rate. This year such an incentive does not exist to the extent it did last year. The fact that the volume of receipts holds out well towards the close of the season must be wholly attributed to the fact that yards are shipping steadily and freely to satisfy a consumptive demand.

The larger share of the lumber arriving is going directly to the yards. There have been a number of loads at the sales docks each day, but the busy portion of the market season is over. A considerable amount of lumber now offered on the market is pick-ups from the mill docks, odds and ends that come in on the fag end of the season. Cargoes of such stuff require some talking before they are sold. Good short piece stuff goes off readily enough at $9.50 a thousand, but that figure is all it will bear. If the offering is in any way undesirable, the purchaser demurs ; hangs off, and finally secures an advantage, or he does not buy. The market during the past week must be characterized as a little heavy and dull. As a matter of fact, it is time to close the season. Both commission men and shippers want to see the end. Navigation is now hazardous, and cargoes always in jeopardy. Besides, the yard men have seen enough of the market this season, and are satisfied with what lumber they have in pile, unless they can get something very desirable. The commission men would like to stop on $9.50 for piece stuff, which is $1 a thousand more than it was last year, and a very good figure to winter over. Quotations all around are unchanged.

Quotations on lumber and shingles are as follows :—

| | |
|---|---|
| Dimension, short, green | @$9 50 |
| " long green | 12 00@14 00 |
| No. 2 boards and strips | 10 50@12 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@20 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 2 00@ 2 25 |
| " clear | 2 10 |
| Lath | 1 30@ 1 45 |

### AT THE YARDS.

There is no marked change in the condition of trade as compared to that of last week, either as respects volume or prices. Shipments continue to be heavy for the lateness of the season. A few yards complain of a recent falling off in orders, and are nursing their trains, so as to keep up a good show on track, but others report the amount of business being done fully equal to the average in October. Eyesight proves that there is by no means any tendency to stagnation throughout the district. As a general proposition prices between yards are tending to greater firmness, and are higher than a month or six weeks ago by 40 cents to $1 a thousand. Dealers are holding out for these advances on dimension, 12-inch boards, and fencing. They feel that, since these classes of lumber are getting much broken in assortment, the receiving season is so nearly over, and the promise of the winter and spring trade is so good, it is the part of wisdom to insist on firmer prices. While this is the general feeling there are exceptions in which dealers continue to talk low prices, and act according in their transactions. On the whole values are rising as if they were being hoisted up, a fraction of an inch at a time, by jack-screws, while an immense weight were resting on them, that tended to force them down the moment the screwing up effort were relaxed. But it is to be hoped the screws will hold, and the superstructure will not fall below the present point, in any event.

There has lately been great inquiry for the lower grades of shingles. Five-inch clears that were bought in the summer for 40 to 50 cents a thousand are now selling well up towards $1. In fact, this class of shingles appears to be verging towards exhaustion very rapidly. Cedar shingles are also still scarce and much inquired for.

The report of stock on hand November 1st, issued by the Lumberman's Exchange, shows an increase of 26,970,238 feet over the amount in pile on October 1st, but it is 23,007,206 feet less than on November 1st, 1884—that is, in Chicago proper. At South Chicago there is 54 593,239 feet in yard, an increase of 31 697,-632 over the stock there at a like date last year. Substract this increase from the decrease in Chicago proper and we will have an increase for the year of about 8,700,000. The stock on hand in Chicago yards November 1st was 665,-050,130, about 42,000,000 more than there was on January 1st. As the receiving season is nearly closed, and the volume of trade is likely to be well maintained for at least a month longer, it is probable that there will be less lumber on hand January 1st, 1886, than there was at a like date this year.

Receipts of lumber, shingles, etc., from Jan. 1st to Nov. 19th as reported from the Lumberman's Exchange :—

| RECEIPTS. | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 46,462,000 | 22,846,000 |
| 1884 | 45,046,000 | 26,798,000 |

FROM JANUARY JAN. 1, 1885, TO NOV. 19, 1885, INCLUSIVE.

| RECEIPTS. | *Lumber.* | *Shingles.* |
|---|---|---|
| 1885 | 1,642,865,000 | 717,585,000 |
| 1884 | 1,761,828,000 | 829,766,000 |
| Decrease | 118,963,000 | 112,281,000 |

LAKE RECEIPTS FROM JAN. 1 TO NOV. 19.

| | |
|---|---|
| Lumber | 1,439,499,000 |
| Shingles | 657,958,000 |
| Lath | 47,745,000 |
| Wood, cords | 27,318 |
| Posts | 3,328,872 |
| Railroad ties | 1,804,357 |
| Slabs, cords | 29,889 |
| Bark, cords | 20,162 |
| Poles | 51,506 |
| Spiles | 2,000 |

STOCK ON HAND NOV. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 665,050,130 | 688,057,836 |
| Shingles | 386,319,180 | 321,961,925 |
| Lath | 75,214,168 | 70,742,042 |
| Pickets | 2,789,250 | 1,889,118 |
| Cedar posts | 537,435 | 400,805 |

### EASTERN FREIGHT RATES.

FROM CHICAGO AND COMMON POINTS ON CAR LOAD LOTS OF HARD AND SOFT LUMBER.

IN EFFECT NOV. 1.

| | |
|---|---|
| To New York | 35c |
| Boston | 40c |
| Philadelphia | 33c |
| Baltimore | 32c |
| Washington | 32c |
| Albany | 32c |
| Troy | 32c |
| Buffalo and Pittsburgh | 20c. |
| Shenectady | 32c. |
| Wheeling | 20c. |
| Suspension Bridge | 20c. |
| Salamanca | 20c. |
| Black Rock | 20c. |
| Dunkirk | 20c. |
| Erie | 20c. |
| Toronto | 20c. |

## ALBANY.

Quotations at the yards are as follows :—

| | |
|---|---|
| Pine, clear, ℔ M | $53 00@55 00 |
| Pine, fourths | 48 00@50 00 |
| Pine, selects | 45 00@47 00 |
| Pine, good box | 22 00@33 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ℔ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 18 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1½-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ℔ M | 100 @120 00 |
| Black waluut, ¾ inch | 80 00@90 00 |
| Black walnut, ⅞ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ¾-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ¾-inch | 28 00@30 00 |
| Ash, good, ℔ M | 40 00@43 00 |
| Ash, second quality, ℔ M | 25 00@30 00 |
| Cherry, good, ℔ M | 60 00@85 00 |
| Cherry, common, ℔ M | 25 00@30 00 |
| Oak, good, ℔ M | 40 00@43 00 |
| Oak, second quality, ℔ M | 20 00@25 00 |
| Basswood, ℔ M | 25 00@30 00 |
| Hickory, ℔ M | 40 00@40 00 |
| Maple, Canada, ℔ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ℔ M | 38 00@40 00 |
| Shingles, shaved, pine, ℔ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 37 |
| Lath, hemlock, ℔ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## LONDON.

The *Timber Trades Journal* of Nov. 14th says :—Trade in London still continues dull, and there is altogether an absence of animation. Values at the Baltic saleroom this week remained on the whole stationary, and we can scarcely chronicle any movement in either an upward or downward direction. It struck us that whitewood in lower qualities had some what given way in price, while lathwood can now be bought on very favorable terms ; a result doubtless of the recent failure of the large importer of this article.

It is mere repitition alluding to the dock deliveries, but we draw attention to them week

by week as fairly indicative of the present apathy of the trade. Towards this time of year an occasional stimulus is to be counted upon, but last year was without its sensations of that character, being a year of excessively dull trade. This year, bar the war scare, has been even more devoid of such incidents in the consumption, and the deliveries fall flat as ditch water. Those recorded this week are less on the three chief items, deals, &c., flooring, and timber, than during the corresponding week's consumption of last year, and it will doubtless be so till something springs up from some unexpected quarter to alter the complexion of the market. Present dock stocks compare favourably with last year, but the demand certainly does not.

There was an unusually large quantity of whitewood submitted in the public sales held at the "Baltic" this week, and we have noticed this apparent plethora of that description. In view of this seeming over-stock, probably due to the falling off in tne continental demand, it is hardly a matter of surprise that prices of spruce have not been influenced by the moderate dock stocks. With the market cleared of Baltic white, the Canadian wood will soon show an upward tendency, stocks being everywhere favorable for such a contingency.

Trade does not seem to be improving in the country, where the dulness is, doubtless, intensified by the approaching elections, and until these are concluded we can scarcely expect to see any revival in business. Politics scarcely interfere, perhaps, so much with trade as was the case iv former times; but with everything in such a stagnant condition dealers are glad to avail themselves of any opportunity to discontinue turning over stock at either a nominal profit or sensible loss, in hope that, with the new Parliament, things may take a turn for the better. However this may be, there is undoubtedly a very prevalent feeling that business cannot be any worse, and therefore is likely to become somewhat better.

Messrs. Churchill & Sim had a big gathering of the trade to their sale on Wednesday, the large assortment of Archangel to be submitted being one of the chief attractions. Not only was the room itself fairly full of yard representatives, but the approaches throughout the day were occupied by members of the trade, discussing things in general, and the new limited company in particular. There appears to have been quite a rush to secure the shares of this new concern, but till the allotting takes place, which will not probably be until we are next in print, those who have their names down will not know if they are among the lucky ones. The whole thing seems to have created quite a sensation, and as things have gone the promoters and the management generally have every reason to be satisfied.

The St. John cargo ex Eleizer, was fairly well sold, planks fetching £7 and deals 5s. to 10s. less, the wood was sound, but, like most of the deals from the lower ports, the sawing was not of the cleanest description.

Quite a throng of buyers got together when the flooring parcels came under offer, but prices went no better than at previous sales, if anything hardly so well.

## LIVERPOOL.

The *Timber Trades Journal* of Nov. 14th says:—It is very unsatisfactory to note the same unvarying depression week after week shown by the market, and the limited quantity of business done, although it is all in favor of consumers. Fortunately we are not swamped with new importations, but still moderate as they continue to be, they are ample for the legitimate demands made upon them.

Under these circumstances it is more depressing than usual to learn that a firm on the west coast of Ireland, engaged in the timber trade, has found it necessary to call a meeting of their creditors together, which was held privately in this city on Wednesday, where the principal brokers are interested. One or two houses in London are involved in the matter, but their amounts are but light. At the time of writing nothing has transpired as to the arrangements or the probable result of the meeting, but it is hoped a fair dividend will be forthcoming.

## LIVERPOOL TIMBER SALES.

On Friday last, the 6th inst, during the inval for luncheon at their mahogany sale, Messrs. Farnworth & Jardine offered the parcel of 470 logs of birch timber, just landed per Alette, from Miramichi. The larger sizes were sold readily at good prices as things go at present, but logs under 16 inches went remarkably cheap; in fact 160 logs were withdrawn peremptorily, and were, it is understood, sold subsequently at higher prices than those offered at the sale.

On Wednesday, the 11th inst., Messrs. A. F. & D. Mackay held one of their usual sales of spruce and pine deals, birch and pine timber, and other woods, but with the exception of the few spruce deals and birch timber, per Guldoon, from St. John, N. B., hardly anything was sold, and the proceedings were soon over, no disposition being shown to bid for the Miramichi deals or pine timber.

## WEST HARTLEPOOL.

The *Timber Trades Journal* of Nov. 14th says:—The reaction in the importation has visibly effected the general volume of activity in the trade, but in the sawn wood department there is yet seen on hand a considerable amount of business, as the heavy importations recently recorded were chiefly goods of this class, the greater part of which now occupy the quayside, and even without any material change in the condition of the imports, these alone will provide during the next week or ten days a steady continuance of activity to effect their removal. The stock of sawn wood is rather heavy, certainly in excess of that which we have seen for two or three seasons. Yard orders are likewise scarcer, and although a fair demand is apparent from the goods on the quaysides, the turning point has evidently not yet been reached which places the demand above that of supply. The sleeper cutting mills are doing next to nothing; no imports of sleepers have been recorded for nearly a fortnight, whilst the creosoting work in hand is now very slight.

When a lot of sawn wood goods are circulating plenty of work is invariably seen at those mills at which business of a general character is conducted, and this we find to be the case at the present time, as at two or three of these establishments the men are kept employed beyond the regulation hours. As regards large timber a brisk trade is doing in Settin oak, several cargoes being sent into the interior as quickly as they can be measured and loaded up; apart from this, however, there is not much going on, orders being very few for pitch pine, Swedish fir, &c. Stocks are light of Quebec timber, such as birch, oak, elm, ash, waney board pine, nor do we hear of any shipments now expected.

## LIETH.

The *Timber Trades Journal* of Nov. 14th says:—The arrivals of wood goods have been smaller this week, and consist chiefly of steamer parcels of sawn goods, with lathwood and other oddments, the only arrival by sailing vessel being a cargo of whitewood battens from Borga. There are still a few cargoes expected, both from the Baltic and also from Quebec, but the quantity is not large.

There has been less business doing this week from the yards, owing to it being the term week, and the same cause effected the public sale held on Tuesday, at the east end of the Edinburgh Dock, by Messrs. A. Garland & Rodger. Notwithstanding that there was a large and varied assortment of American and Baltic wood goods advertised to be offered, the attendance of buyers was very disappointing, and there was a great lack of competition among those present. The broker, Mr. James Thomson (Messrs. Wm. Thomson & Co.), went faithfully over the various parcels, but the great bulk of the goods had to be passed, and the quantity actually disposed of was very inconsiderable.

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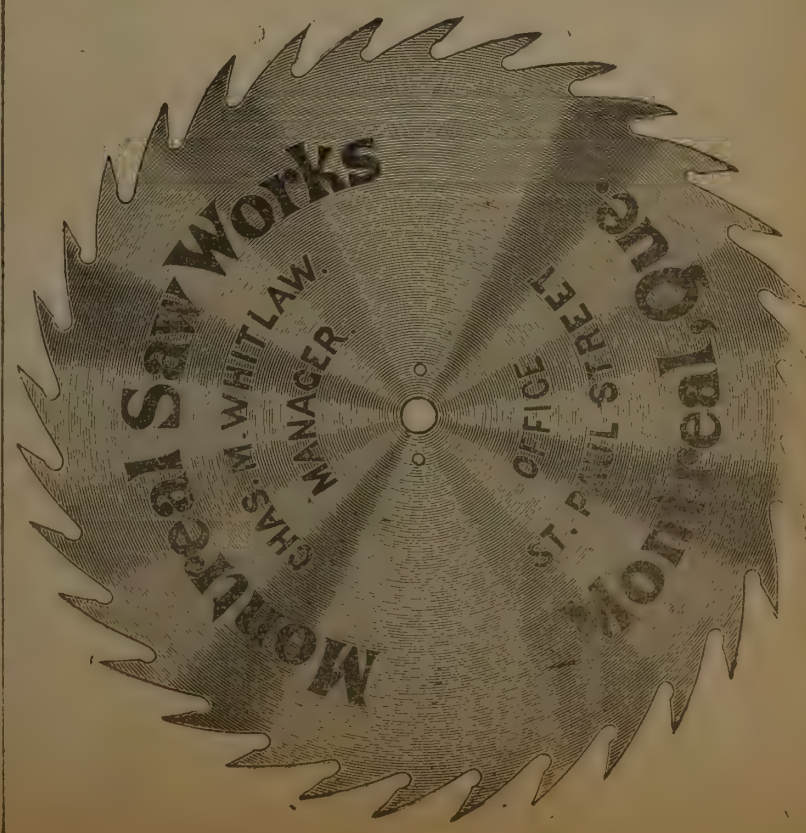


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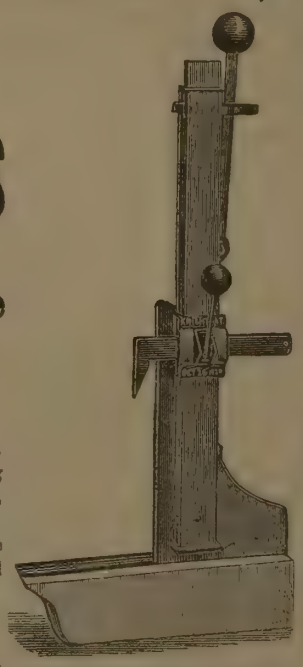

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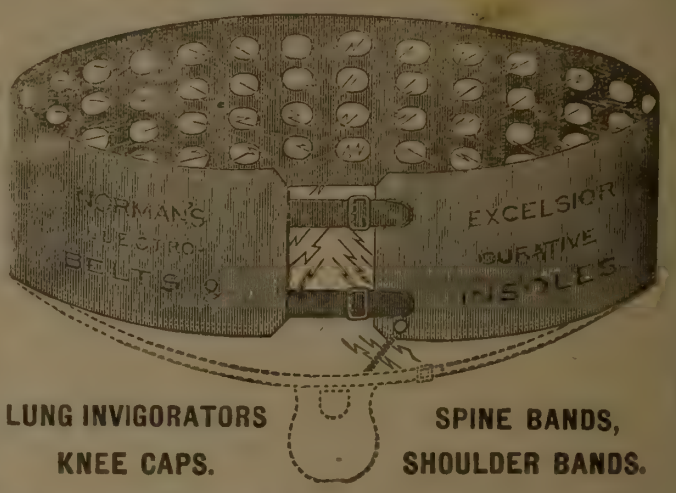


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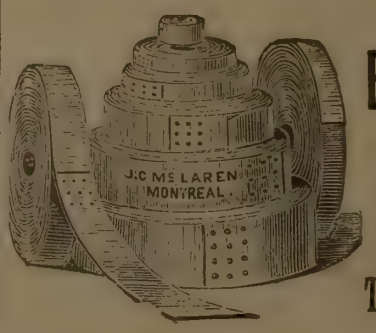


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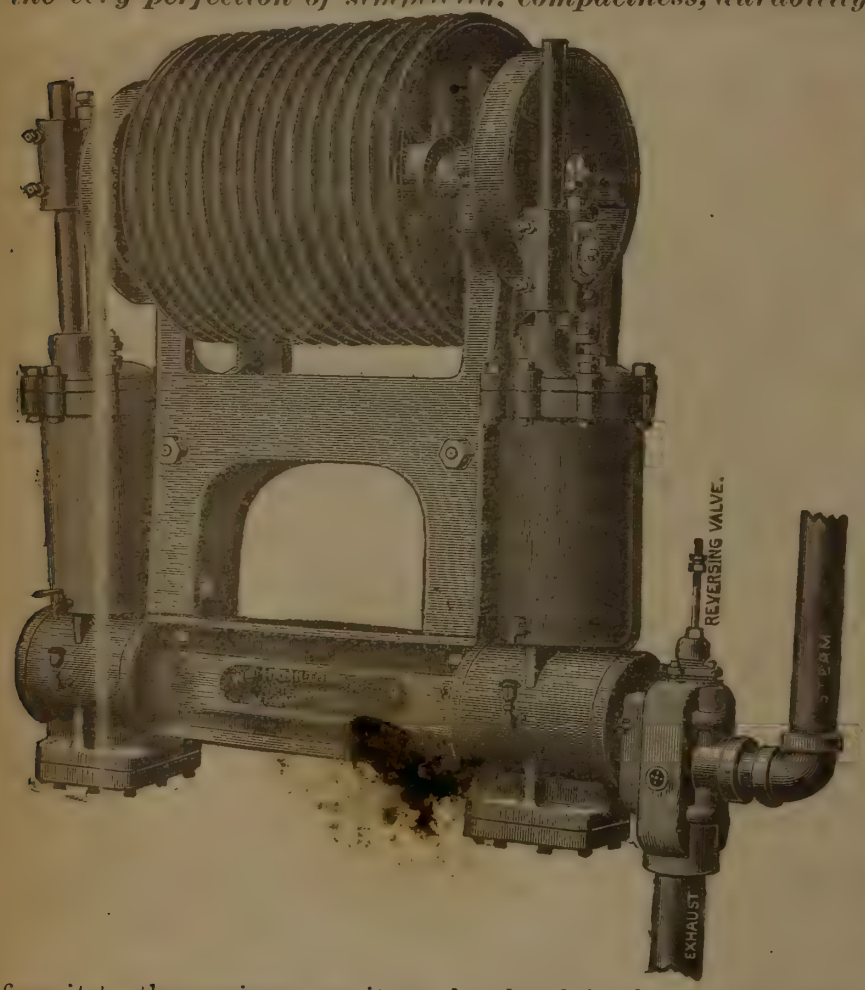


The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoupling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

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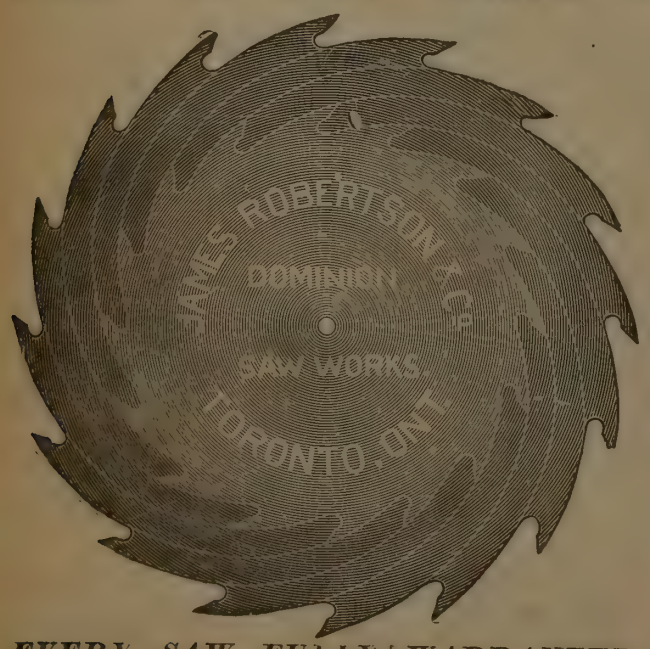


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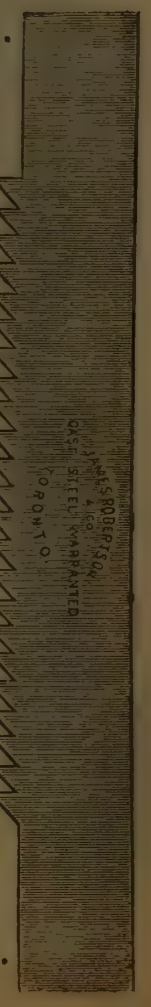


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# THE CANADA LUMBERMAN

AND MILLERS' MANUFACTURERS AND MINERS GAZETTE

PUBLISHED SEMI-MONTHLY.

*The only Newspaper devoted to the Lumber and Timber Industries published in Canada*

SUBSCRIPTION $2.00 PER ANNUM

VOL. 5. PETEROROUGH, ONT., DECEMBER 15, 1885. NO. 24.


## FORESTRY IN ILLINOIS.

The following letters were published in the Toronto *Globe* :—

SIR,—Passing from Chicago, thirty miles to the north, along the lake, we reach Waukegan, the home of the leading tree-planter in North America, whose trees I have found growing by the thousand on the distant Atlantic coast, in the far south and over the eastern prairies. I think of all the localities I have visited, trees seem to flourish here the best. It is not the soil, for that is evidently but poor and sandy. It may be that the atmosphere—from which, in fact, trees derive most of their nourishment—is the cause. Here, on the shores of Lake Michigan, exposed to the full force of the eastern winds, the lake breezes meet and mingle with the air of the prairies. Whatever the cause, the maple foliage now autumn reddened stands from the tree with a bolder and a wider spread. The pine and cedar are of richer green than I have seen elsewhere.

Here, on the extensive grounds of Mr. Douglas, are great masses of closely-standing young pines, spruce, and larch, acres in extent, illustrating the principle on which he has commenced, throughout the States, many large and thriving plantations. Let me first state the object for which trees cultivated in this manner are planted :—1. To grow wood more rapidly than any other process will give it. 2. To grow that wood in straight beams. 3. To obtain much more wood from the same ground than an equal space in the natural forest would give. 4. To create such a plantation as will, in exposed situations, act as a complete and impervious shelter and will give dense shade on every side, so as to benefit cattle without the necessity of allowing them to enter and injure it. 5. To create one which will also act as a reservoir of moisture, preventing rain from passing too rapidly away, and giving it out gradually by feeding springs, and otherwise—a most valuable quality, especially where the plantation can be located on the higher portions of the farm. 6. To plant so that the trees will never need pruning, but will prune themselves so that after two or three years no cultivation will be necessary and no weeds appear.

All this is secured by planting trees not more than four feet apart each way. For two or three years they are cultivated to destroy weeds, and after that the depth of shade they cast prevents future growth. This great mass of trees then, growing up closely together, presents always on the upper surface of the grove a succession of bright, green-leaved, and healthy tree tops, while inside the grove the appearance will be very different. There will here, especially in the case of evergreens, be many decaying and falling branches. In fact the shade will kill off all branches but the upper ones. As the grove gets taller, and the trees larger, there will be too many trees, and the weakest of those will in turn be killed by the strongest depriving them of light and air, till the proper number of trees is left on the ground.

Nothing need be done so far to assist nature. But if the trees have been properly selected this process of crowding can be made convenient to the uses of the owner of the plantation. If every here and there among the trees at proper distances have been planted such as are of slower growth, the quicker growing may be taken out as they mature, and those of slower growth left to continue the grove ; or those whose timber is the most valuable can left, those least valuable removed. For instance, say we take the black walnut (where it will grow), ash, cherry, and yellow birch, all of which are very valuable timber. Plant them 8 by 8 feet apart. Let us then take maples—soft maple or sugar maple—and box elder, and fill up till all is planted 4 by 4 feet apart. Planted altogether they will soon cover and shade the ground, will all grow up together to a dense grove, and will, when the maples and elders are taken out (doing which will give a great deal of timber), leave room for the more valuable trees, which in their turn will be taken out when mature. For instance, you will get the cherry in half the time you would have to wait for the black walnut. Evergreen and larches are planted the same distance apart, but plantations of these are better by themselves. Plantations of this nature will fulfil the previous description.

When the ground is well-prepared and mellow they can be planted easily and rapidly, and by persons who have had no previous experience. Two men generally perform the planting, or a man and a boy, the latter holding a bundle of young trees under, takes one and stands it in place when the other has opened the ground for it by removing one spadeful of earth. This is then placed again in the cavity, against the root, which is held by the other firmly against the back of the opening. The earth is now pressed against the root with the foot, and the tree is planted. Very few fail to take root. The trees are, of course, small, from one to two feet high, but being grown in nursery beds have generally good roots. Two people plant nearly a thousand a day. The cost of these young trees is small, in large quantities—say twelve thousand—they are quoted here, most of the varieties mentioned mixed, at two dollars a thousand ; and I have no doubt that if a large demand existed they would also be cheaply obtained in Canada—perhaps can now. In a few years no part of our farm will will pay as well as some acres so planted, counting wood alone. It is surprising how many cords of wood, in mere cullings, can be taken from a small plantation, while, in yielding shelter and improving the adjacent soil by its retention and distribution of moisture, the advantages would be very great.

Waukegan, Ill., Oct. 25th. R. W. PHIPPS.

## LETTER FROM HON. H. G. JOLY.

SIR,—I read with much interest Mr. R. W Phipp's letter published in your issue of the 4th inst., and his description of tree culture in the prairies of the West, noticed especially the great losses entailed by frosts. The protection of young plantations against frost is a question of vital importance to all planters of trees, either fruit or forest trees in the north, and the wind breaks and hedges recommended by Mr. Phipps are certainly the best protection but it is important ascertain how they act. The tree planter whose opinion is quoted by Mr. Phipps appears to think that those wind breaks and hedges protect the trees against the frost by sheltering them from the wind. It is not out of of any love of contradiction that I find this explanation insufficient ; I think they protect the trees by stopping the snow and causing it to cover the ground at the foot of the trees.

If I may be allowed to quote my own experience, you will perhaps admit that it is more important than would appear at first sight, to ascertain exactly how and why those windbreaks and hedges protect the trees against frost ; in fact, it is the only way to arrive at a reliable system of protection.

Until this summer the experience of the last 12 years appeared to justify the conclusion that the black walnut (whose timber ranks, in commercial value, next to mahogany) can stand even our Quebec winters with impunity. The result of last winter's exceptional severity compels me to speak with less assurance, as it killed about three hundred of my young walnuts which had safely stood the ordeal of several winters. However, I do not regret the loss as it has shown me how to prevent its recurrence and provide against more serious loss in the future.

When the spring opened these young trees showed no sign of decay. The buds began to swell like those of other trees, a few even opened. It took some time to realize that vegetation was at a standstill within them. The stem and branches looked healthy, the bark fresh and the underbark green. A few bore marks of sunburn, but the same marks were found on some of the growing trees. I was quite puzzled as long as I looked above ground. It was under ground, when digging up the trees, that the explanation was found the bark of the roots was all mildewed, burt, and completely separated from the wood, for a depth of from 12 to 14 inches from the surface of the ground ; below that it was quite sound, adhering closely to the roots.

It was evidently the result of frost acting on the water contained in the soil and the roots. But why out of several thousand walnuts, growing on the same soil and with the same conditions of moisture, did we lose only three hundred ?

The answer was easily found. All the trees killed by the frost stood in parts of the plantation where the first snow did not remain (as there happened to be no obstacle to prevent its being swept away by the wind) and where the unusually heavy rains of last December left a coating of ice around the foot of the trees.

The trees growing where fences or hedges arrested the snow and caused it to remain on the ground, escaped, without one single exception, though many were just as much exposed to the force of the wind as those that were killed, as they stood on the same side of the hedge but where the ground was covered with snow. The snow protected the roots from the frost and prevented the formation of ice around the foot of the tree. Three different plantations, widely apart from one another, and on different soils, gave the same results.

It is easy to cause the snow to remain where it is wanted, especially with willow hedges ; they cost next to nothing ,just the trouble of sticking the cuttings into the ground at the proper season and never fail. Those hedges are as useful in summer as they are in winter. A knowledge of the direction of the prevailing wind will help to place them where they can be most effective in collecting the snow, which I consider as the really protector of young trees against the severity of our winters. It is not too late to try the remedy even now ; fence rails, branches, stones, any temporary obstacle that will arrest the snow would answer to the purposes, until the permanent hedges are ready.

We know very little of forest tree culture here. We can learn a great deal from the scientific foresters of France and Germany, but we must not lose sight of the difference of climate laws and customs between them and us, which will make it necessary for us to modify their system in many instances.

For the present we must look to experience as our teacher ; its lessons are useful but somewhat expensive. We can lesson the cost for one another by contributing our little share of experience to the common stock, with the generous help of the press, which has never been refused to the cause of forestry.

H G. JOLY.

Point Platon, P. Q , Nov. 10th.

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BIRDSELL & BARKER'S saw mill, Bay City, was totally destroyed by fire on Dec. 2nd. The The loss is placed at $150,000 ; insured for $100 000. It was built in 1872 and was the largest on the river, having a cutting capacity of 40 000,000 feet of lumber per season. The mill employed 150 men, and at the time of it erection in 1872 was the largest concern of its kind in the world.

### MATERIAL AND FORM OF DAMS.

The weirs or dams thrown across the beds of rivers have been constructed in a great variety of shapes and of different materials, some of them too costly for general use in a country where small mills are chiefly needed. In cases where the supply of water is large and a high fall is not demanded, a temporary dam composed of boulder stones is sometimes thrown across the stream in a diagonal breadth. The water is thus partly forced into the conduit or race above the dam, and the remainder passes over the surface of the dam in a shallow sheet. Being hastily and cheaply built, a dam of this kind may be repaired without much outlay, but the inconvenience of doing this after every heavy raise of the stream is a material drawback on its value.

In contrast with this comparatively rude species of dam are those of more solid structure, substantially built of stone, and stretched across the river in the form of a bow, the curve being against the current—the middle of the dam, in other words being higher up the stream than the two ends. A dam of this sort, if provided with massive stone abutments, present a firm resistance to the onset of a flood, and will stand any test ordinarily experienced. It may be made with a gentle slope from the crest both up and down the stream ; or with a steep descent on each side, making its walls almost perpendicular ; or again with either a steep or sloping front on the upper side and on the lower a curved apron, the wall rounding downward from the top like the lower half of the letter C, by which arrangement the fall is made gradual and its force abated.

In a stream of moderate size, a form of weir has sometimes been adopted resembling the letter V, with the apex or point directed up stream. If built upon piles, with a frame of timber forming an inclined plane upon the face of the dam, and filled up with gravel surmounted by a mass of bolder stones well packed in, the dam will be nearly impenetrable by water. The position of the two arms of the V distributes the force of the water in passing over, and as the currents descending from either side tend toward the centre of the stream, the banks are less liable to be washed away. If timber is abundant, the frame instead of having a uniform slope downward on the face of the dam, may be made in a series of steps like a wide stairway, breaking the water into cascades. The piles for such a dam may be placed at right angles with the current, stayed and covered with plank, and made watertight with sheet piling supported with foot piles. Constructed in other respects like the one last described, a dam of this kind will possess great durability and admit of no leakage.

An undue accumulation of water above the dam may be remedied by a channel and sluice gate in one of the side walls, by which the surplus water may be drawn off before reaching the crest of the dam. A self-adjusting dam of heavy planks strongly framed together is sometimes stretched across the stream, connected by hinges to the crest of the permanent dam, and held in an upright position by weights passing over wheels on the abutments. In case of a flood the weights give way partially to the increased pressure and the auxiliary dam is let down toward a horizontal position, allowing the water to pass unobstructed. In place of an appendage of this kind, movable flash boards are often used, being held in place by pins and other supports along the brink of the dam, and tightly fitted to each other. In time of low water, the flash boards are of important service in obtaining sufficient head. When the stream rises, the boards are removed (though the supports may often remain) and the crest of the main dam being below high water mark, the surplus water escapes freely.—*Leffel's Construction of Mill Dams.*

### THE GROWTH OF LONDON

Some remarkable facts about the growth of London during the last thirty years are contained in the opening address of the President of the Surveyors' Institution. The president has set down in tabular form the number of building operations, including new buildings and and alterations to old buildings since 1856. In that year the works were 14,654 in number, and they gradually increased until 1868, when they reached 21,915. About this time there seems to have been a glut in the building trade, for building operations commenced to fall off, and decreased steadily until 1873, when they numbered 17,354. After this dull season the builders commenced to be buisy again, the nnmber of works increasing by hundreds and thousands yearly, until in 1881 it reached its height with 29,271. Another dull season seems to have set in for the builders, for though the last figures only apply to 1883, and these show a decrease of nearly 3,000, it is understood that the building trade has not yet recovered from the congestion of 1881-82. We note that while in the earlier years the number of new buildings exceeded that of additions and alterations, the balance has recently swung round the other way. During the seven years 1876-83 the number of new buildings constructed in London was 80,657, and of additions and alterations to buildings 80,399. But while the proportions in 1877 were 10,052 new buildings to 8,930 alterations, in 1883 they were 8,750 new buildings to 11,100 alterations. The main building construction is that of houses for artizans and people of small incomes in the suberbs. Land about Clapham Common has been augmented in value from about £1,000 to £3,000 an acre. In the outlying parts of Battersea it is £3,500. In North London the increase in the value of building land is even more marked, and the health-giving slopes of many a green retreat are marked for future streets. The president of the Surveyors' Institute thinks the growth of this class of ihabitation means more comfort and better health for workpeople. We hope that may be so ; but if builders continue to throw up houses as they do just now, running them up from start to finish, without sufficient inspection, in less than a fortnight, those who inhabit them may, after all, gain neither in comfort nor sanitation.—*Timber*

### THE OUTLOOK FOR 1886.

The old saying, "Tip one brick and it tips all the rest," has been fully verified during the past three years. But, "Raise up one brick and it encourages or sets all the rest to raising," is the phrase now most interesting. In the industrial world each industry is dependent upon the rest, and all must be successful if one would be. The farmer and producer of raw material buys more when he sells more, and sells more when he buys more, gets better prices, and like the old fable of the clock when each hand and wheel and pendulum began to move, the whole started and was prosperovs. One cannot move without the rest. There is no healthy circulation when even a hand is paralized. No special industry can force itself into the highest permanent prosperity except as it assists and makes possible the highest permanent prosperity of all. The raw material must move, the railroads must move, and all unitedly. It is fortunate that a necessity always exists in all highly intelligent communities for every possible species of product of farm, mine or mill, and this necessity must at all times compel the movement of the wheels of industry, if not arbitrarily enjoined. When the United States imported more than it exported, and were continually shipping gold and bonds to meet the balance of trade and indebtedness, and were oversupplying the markets with foreign products, depressing prices, reducing freights, and destroying manufactures and their ability to afford employment, there was a cause for disaster, and the wheels must stop until the overstuff was worked off. The patient was very bilious.

Now, after nearly three years of a better, although a very rigid economy in importing, the wheels are again beginning to move. On all sides we hear that the stocks are reduced, and that something to wear is needed as well as something to eat. The old plough and the old coat have been mended and patched until there must be new ones. To make the plough, the furnace and foundry must blow, one miner must dig the ore and another coal, the railroad must haul them, the lumberman must prepare the timber, and the mechanic must put all together. To make the coat the sheep is shorn, the woollen mill and the clothier, the sewing girl, the button-maker and the trimming maker find employment. In the same way the wheels of the industrial enterprises are now steadily beginning to show increased activity. Some articles of home manufacture are reported scarce and advancing in price, and this for the first time since the latter part of 1882. There are no more people or no more capital in the States than can find profitable employment, if we will only stop employing from outside, and develope our own resources. The imports of goods from other nations this year are less than our exports, while stocks have been reduced and must be replenished from some source. The cost of manufacture is, also, so far lessened that goods cannot at present be imported in competition, and large part of what is now consumed here is being produced here, and the nation is convalescing, but slowly. If the sick man's appetite does not so far overact as to cause a relapse there are good hopes for a new prosperity to all the varied industries of the nation.

In various quarters of the West and Northwest there are a number of new railroads projected, and a better demand is aspringing up, and better prices are obtained. Steel makers are at work more generally, producing tool steel and rails, and a variety of other kinds. But, as intimated above, the iron interest must wait the readiness of many other industries for its genuine prosperity. The hum of the cotton and woollen spindles, and the confidence the activity imparts is necessary to the starting of the iron manufacture, and these are beginning to respond to a better call for goods, and in many quarters we learn of considerable activity. As merchant after merchant calls for new supplies of merchandise, it begets hope and confidence that the dawn is at hand—the dawn of better and brighter days.—*Chicago Lumber Trade Journal.*

### INTERNAL SCREWS IN STOP VALVES.

A very faulty detail in the construction of steam and water stop valves is the internal screw and nut on the valve spindle. It may give the valve a neater and simpler appearance, and it is a cheaper job than the external pillars and crossbridge type of construction, but otherwise we fail to observe anything commendable in it. The condition of the thread cannot be ascertained without taking off the covers, and this, in case of boiler stop valves can only be done when the boiler is laid off. A writer says :—"We have recently been troubled with our boiler feed valve, which is constructed with the internal serews. We are blessed with dirty and gritty feed-water, which plays sad havoc with the valve threads. The valves are always sticking and will not shut tight, and when taken out and examined the threads are invariably found to be badly burred, and require to be filed and made an easy fit before being replaced. Not long ago one of the attendants was about to shut off one boiler in a range when to his surprise he found the valve spindle thread stripped. This was very awkward, as he wanted to blow off the boiler, and to shut the other boilers meant, of course, stopping the engine. Now, supposing an accident had happened to this boiler, which required its being quickly shut off from the rest of the range, the quickest way we could have done it would have been to shut every junction valve, and what might not have happened in that time? If the valve had had an external thread its condition could at any time be seen, and if tailing, renewed or remedied, but being inside the box its condition could only be ascertained periodically." Apart from the serious drawback of the screw being always in contact with any impure or corrosive matter that may be passing through the valve, the internal nut is a fallacy, and it is pleasing to record the fact that it is fast disappearing.—*Boston Journal of Commerce.*

### WOOD-WORKING PATENTS.

The following list of patents relating to the wood-working interests, granted by the United States Patent Office, December 1st, 1885, is specially reported by Franklyn H. Hough, solicitor of American and Foreign patents, 925 F. Street, N. W., Washingston, D. C.

331,633.— Chuck, lathe—G. A. Barnes, New Haven, Conn.

331,590.—Saw feed, gang—J. H. Watson & C. H. Hubbell, East Twas, Mich.

331,619.—Saw mill dog—A. Delaney & J. M. Bond, Richmond, Va

331,653.—Saw mill, portable—J. N. Richey Waynesborough, Pa.

PATENTS ISSUED DEC. 8.

331,790.— Cutter head—A. Hoppins, Kingston, Ontario, Canada.

332,124.— Hoop planing machine —A. F. Ward, Detroit, Mich.

332,065.— Lathe boring tool — D. Evans, Sharpsburg, Pa,

332,086.—Lathe tool holder—B. B. Keyes, Chelsea, Mass.

332,213.—Lumber elevator—H. T. Runyan, Chicago, Ill.

332,161.—Saw mill—J. S. Millar & E. Lapham, Cadilac, Mich.

331,887.—Saw set—R. F. Gibbs, San Francisco, Cal.

332,184.—Saws, device for holding circular —J. Prickett, Marinette, Wis.

331,839.—Shingle slicing machine—C. H. & J. B. Spencer, Niantic, Conn.

SLEEPLESS NIGHTS, made miserable by that terrible cough. Sbiloh's Cure is the remedy for you. For sale by Ormond & Walsh, druggists, Peterborough.

McGregor & Parke's Carbolic Cerate is invaluable for Wounds, Sores, Salt Rheum, Cuts Burns, Scalds and festers, as a healing and purifying dressing. Do not be imposed on with other useless preparations, recommended to be as good. Use only McGregor & Parke's Carbolic Cerate. Sold by John McKee.

# Notice to Contractors.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Public Buildings at Peterborough, Ont," will be received until TUESDAY, the 20th day of January next, inclusive for the erection of Public Buildings, for

## THE POST OFFICE,

AND

## THE CUSTOMS & INLAND REVENUE OFFICES

AT PETERBOROUGH, ONT.

Plans and specifications can be seen at the Department of Public Works, Ottawa, and at the office of J. E. Belcher, Architect, Peterborough, on and after FRIDAY, the 18th day of December next.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied and signed with their actual signatures. Tender for each building to be separate, and forms will be supplied for each.

Each tender must be accompanied by *accepted* bank cheque, made payable to the order of the Honourable the Minister of Public Works, *equal to five per cent* of the amount of the tender, which will be forfeited if the party decline to enter in a contract when called upon to do so, or if he fail to complete the work contracted for. If the tender be not accepted the cheque will be returned.

The Department does not bind itself to accept the lowest or any tender.

By order,

A. GOBIEL,
Secretary.

Department of Public Works, Ottawa, 7th December, 1885. 3w50

# Health is Wealth

DR. E. C. WEST'S NERVE AND BRAIN TREATMENT, guaranteed specific for Hysteria, Dizziness, Convulsions, Fits, Nervous Neuralgia, Headache, Nervous Prostration caused by the use of alcohol or tobacco, Wakefulness, Mental Depression, Softening of the Brain resulting in Insanity and leading to misery-decay and death, Premature Old Age. One box will cure recent cases. Each box contains one month's treatment. One dollar a box, or six boxes for five dollars ; sent by mail prepaid on receipt of price. We guarantee six boxes to cure any case. With each order received by us for six boxes, accompanied with five dollars, we will send the purchaser our written guarantee to refund the money if the treatment does not effect a cure. Guarantees issued only by J. D. TULLY Druggist, Sole Agent for Peterborough.

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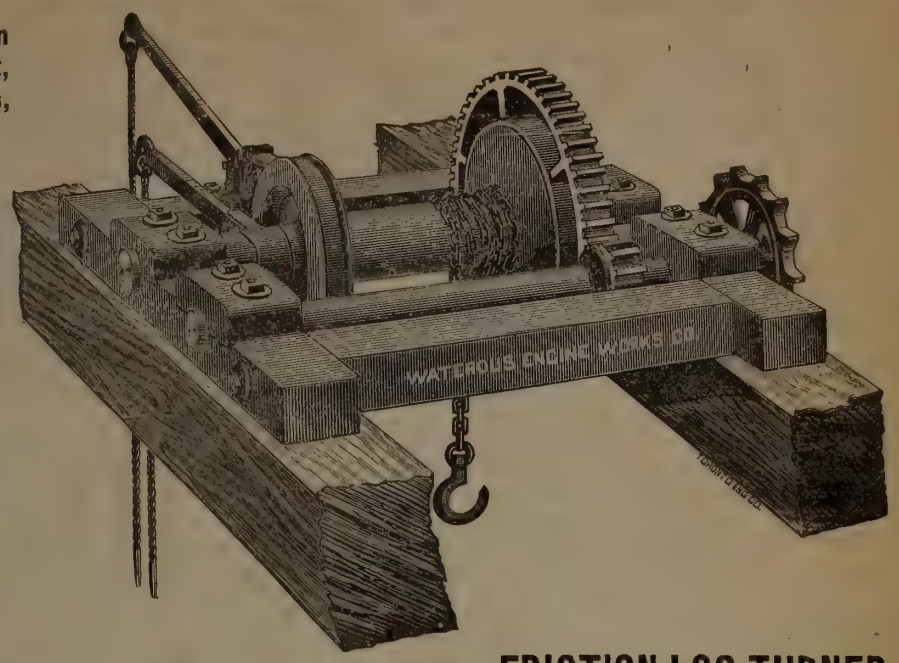


## Heavy Saw Carriage

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### UTILIZING PETRIFIED WOOD.

The petrified wood that is so abundant in the United States Territories of Arizona and Wyoming and the Rocky Mountain regions, is rapidly becoming utilized. In San Francisco there is now a factory for cutting and polishing these petrifications into mantle pieces, tiles, tablets and other architectural parts for which marble or slate is commonly used. Petrified wood is said to be susceptible of a finer polish than marble, or even onyx, the latter of which it is driving from the market. The raw material employed comes mostly from the forests of petrified wood along the line of the Atlantic and Pacific Railway. Several other companies have also been formed to obtain concessions of different portions of these forests. Geologists will regret the destruction of such interesting primeval remains, and some steps ought to be taken to preserve certain tracts in their original state.

### BUSINESS CHANGE.

Henry Ward Powis is among the Canadians who have deservedly made a name and standing in the old world as well as the new. Having gained his knowledge of the timber trade mainly in Quebec, Mr. Powis was so fortunate as to form, some years ago, a connection with the prominent and wealthy English house of Bryant & May. The firm of Bryant, Powis & Bryant was formed and has been very successful in the wood trade. Since the recent death of one of the Messrs. Bryant, it has been decided to form a joint stock concern under the name of Bryant, Powis & Bryant, Limited, to continue a business of wood brokers and importers. Messrs Wilberforce Bryant, Frederick C. Bryant, and Mr. Henry Powis, the principal proprietors. The authorized capital is £200,000 in shares of £1, and £100,000 is the first issue. They take fully paid 33,333 shares of the present issue. The transfer of the business is to include the leasehold offices and premises belonging to the firm in London, Quebec and Montreal, with all fixtures, furniture and fittings therein. We are told that the shares, to use an American expression, "are going off like hot cakes."—*Monetary Times.*

### AN INTERESTING CASE.

The case of Queen v. St. Catharines Milling and Lumber Company was commenced on Thursday before the Court of Appealin Toronto. The Plaintiffs in the action are the Ontario Government, who sue the St. Catherines Milling and Lumber Company to restrain them from interfering with certain timber. The defendants are licensees from the Dominion Government of the timber upon an area of land covering 55,000 square miles, situated in the neighborhood of Lake Wabigoon in the district of Algoma, and under their license have been cutting the timber. It is claimed, on behalf of the defendants, that the land in question belonged originally to the Indians, that by the Northwest Angle Treaty No. 3, in consideration of certain reservations then made to them, and of the payment of perpetual annuities, the Indians ceded the territory to the Dominion Government, and it is now theirs to dispose of, and further that the lands are undisposed of by the British North America Act, and therefore go to the Dominion. On the other hand the Ontario Government contends that the Indians never had any title, and that even if they had, the cession by them would make the lands Crown Lands, and so they would go to the Province. It is contended further that the lands are within the limits of the Province and are public lands of the Province subject to provincial rule. The case was tried in the first instance some months ago by Chancellor Boyd, who decided in favor of the claims of Ontario. Mr. McCarthy, Q. C., opened the case for the defendants. With him are Messrs. A. R. & W. Creeman, while the plaintiffs are represented by the Attorney-General, and Messrs. Cassels, Q. C., and D. Mills, of London. The Dominion Government is not a party to the suit and hence is unrepresented.—*Mail.*

### LARGEST CUT ON RECORD.

The Au Sable *Saturday Night* gives the following particulars of the big day's work of the Pack, Woods & Co. mill at Oscoda:—

Since the breaking of the mill cut record by the Gratwick, Smith & Fryer mill two weeks ago, Pack, Woods & Co., of Oscoda, had been making preparations te eclipse all previous performances, and last Wednesday was the day set for the work. The logs cut were choice white pine and averaged about 2½ to the 1,000 feet. The days run was on one and one-half inch stuff. The number of logs cut was 1,063, which scaled 442,830 feet. The logs were scaled by Ed. Donigan, one of the Boom Company's scalers. It is estimated that the lumber will overrun the log scale about 30,000 or 35,000 feet, so that the amount of lumber sawed would be about 475,000 feet. The lath mill, run by Horace Beacon, on the same day cut 76,000 pieces. The mill had a number of break-downs during the day so that the actual running time was less than 12½ hours. The circular sawyers were Frank Pierce and Sam Utley, and the gang sawyer Jas. McDonald. This is the largest day's cut ever made by a mill of the same capacity.


WILL YOU SUFFER with Dyspepsia and Liver Complaint? Ballioh's Vitalizer is guaranteed to cure you. For sale by Ormond & Walsh druggists, Peterborough.


### THE OLDEST AMERICAN LOG SCALER.

The oldest scaler on the Saginaw river, and perhaps in the United States, is S. B. Brown, of East Saginaw, who has been at the business 35 years, having commenced in Maine 35 years ago, and has continued in the business since that time. While in Maine he sailed on the ocean in summer and scaled logs in the woods in winter. Mr. Brown has resided in Michigan about 28 years, and has scaled logs during that time, summer and winter, in the vicinity of Port Huron, St. Clair, and of late years on the Saginaw river, where has scaled, perhaps, twice as many logs as any other man. He once scaled 500,000,000 feet of logs in 200 days—a feat never before accomplished on the river. Of course he does not measure every log with a scale rule. So accustomed has he become to the business that he can tell the amount of lumber there is in a log by measurement of the eye, and he has the reputation of being unusually accurate and reliable in his figures. Though Mr. Brown is verging close on to 80 years of age, he appears at least 15 years younger, and is still in active service. If there are any young fellows in the Saginaws who can "get away with him" in a day's scaling they have failed as yet to show up.—*Exchange.*


**Advice to Mothers.**

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system, Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the perscription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world Price 25 cents a bottle.

## VALUE OF LUBRICANTS.

A system of collect and purification of the oil running of the ordinary journals into the drip pans may, in nearly all cases, be easily adopted, at once reducing the cost of lubricant and making its first cost a matter of less consequence. Suppose a grease used in the shop under consideration, and such as now costs 25 cents per pound, and assume that it is given as a sample, costing the proprietor nothing, but bringing up the coefficient of friction, as an average of 0.10. The cost of power is now the total expense, and this becomes $3.33 per hour, or $10 000 per annum, while the loss to the owners of the establishment on their bargain is $5,000 per annum.

It will next be asked, What price represents the limit which may not be exceeded, without loss, in the purchase of the oils proposed to be substituted for that first used in this instance? By a proper equation we find the second oil causes a loss of $10.78 for every gallon used, and hence cannot be used without loss, unless the user is paid that sum to take it and apply to his machinery. Comparing the first two cases named in last week's article, it is found that the second disposition of the poorer grades of oil is of such advantage that it is as well worth well worth 84 cents per gallon as is the better oil worth 50 cents, used as at first proposed. But it would be a still better investment to purchase the better oil. Comparing the first and last cases, using equal amounts per gallon, the equation shows the heavier lubricant as subjecting the user to an expense amounting to over $10 for every pound used It must not, however, be inferred from this that it is always wasteful to use the greases. They are often advantageous where exceptional pressures are used, or troublesome bearings are met with, and are sometime absolutely indispensable, saving large amounts by their reduction of expense in the cooling and preservation of journals, and in the renewal of bearings. As an illustration, assume a cotton mill to use a good oil averaging 70 cents a gallon, at the rate of 0 7 per hour, with a coefficiency of friction 0 10, on machinery demanding 400 horse power, of which 120 horse power is required to overcome the friction of surfaces lubricated by the oil. Taking the value of the power at $65 per horse power per annum, and 3,000 working hours, we have one element of the equation. If it is proposed to substitute for the oils used in this mill others averaging a cost of 40 cents per gallon, giving a mean coefficient of friction of 0 12, and of which one gallon will be used per hour, and a proper equation shows a gain of nine cents per hour, or $270 per annum, in buying oil, which is to be set against a loss of 52 cents per hour, or $1,560 per annum, in increased expense on the account of operating mill, the net loss amounting to above $1,000 per year. Had the coefficient of friction increased to a greater extent, the loss would have been correspondingly greater The differences among the lubricants sold for mill purposes in the market are sometimes enormously greater than assumed above, and a loss of $10 per horse power annually is proba ly not an unknown case, and this is equivalent to about double that sum per horse power expended on the friction simply.

Thus the owner of a mill could not afford to accept the second lubricant in substitution for the better oil as a gift. The substitution of an engine oil on the spindles for the best spindle oil might readily double the expenditure of power absorbed by the spinning machinery, and thus increase the cost of both lubrication and power, the former having both a higher coefficient of friction and greater price than the latter.

The conclusions to be drawn from the principles and theory which have been presented in last week's issue and in this, and from the examples of application to practice which have been introduced, are obvious and definite :—

1. To secure the highest possible efficiency of machinery and maximum of economy in the operation of establishments in which it is employed, lubricants must be carefully selected with reference to the precise conditions as to pressure and velocity of rubbing met with in the individual case. Where, as in machine shops and mills for example, there exist great differences in these respects, it will be found best to use different oils, as heavy oils on the engine-bearings, special cylinder oils in the steam cylinder, lighter oils on the shafting, and the lightest of the better class of lubricating oils on light machinery, as on spindles.

2. Differences in the price of oils or other lubricants are usually of exceedingly slight importance in comparison with differences in cost of power, and the value of the coefficient friction is therefore of vastly greater consequence than either the price of the lubricant or its endurance.

3. The best oil for specified purpose should be taken as a rule, whatever their market price ; while the oils which are not well adapted to the purpose in view cannot be economically purchased at any price. It will often be found that the best quality of oil is not necessarily the best oil for any one specified purpose. An oil may be intrinsically excellent, and may be a very expensive oil, but may, nevertheless, be absolutely worthless for the purpose in view. A good engine oil would, for example, be quite unfitted for use as a spindle oil, and though several times as high in price, might be the cause of such considerable waste of power on light mill machinery that the mill owner, as has already been seen, might find it to his interest to decline using it, even if it were offered to him as a gift. The heavy oils are the most costly, and in this case the better oil is, therefore, also the cheaper in the market.

4. The cost of using a lubricant which is not well adapted to the work is so great that ungents should always be tested, and their adaptability to the special case determined, by a correct system of chemical and physical tests, and by trial upon a good testing machine, if possible under the exact conditions of the intended use. The determination of the quality of any lubricant is an easy task ; but the identification of the real conditions of use, as proposed, may sometimes be difficult. The difficulty arises, however, not from faults of method of test or uncertainty of results, but from defects of design or construction, or sometimes of management, of the machinery upon which it is proposed to use the oil. Where journals are kept in good order and properly proportioned, no difficulty need ever arise in the attempt to find the best possible lubricant for them. As a rule, there is no excuse for a condition of machinery which gives rise to such uncertainties As a rule, in all successfully conducted departments of business, such uncertainties do not exist ; they do not arise with sufficient frequency to invalidate the above rules. Testing machines are now made in sufficient variety of form and of ample range of application, and of such satisfactory accuracy that there is no longer necessity of accepting the risks, and of meeting the enormous expense involved in the application of lubricants of unknown quality to valuable machinery.

5. Where lubricants of the precise quality desired are not found in the market, it is advisable to secure the right grade by mixing This can always be done by mixing a series of mixtures of good oils, such that, at the one side, the gravity and other qualities shall be too high, and, on the other side, too low, for the special application had in view, and thus working out—after determining by trial the law of variation—the mixture must prove suited to the purpose. The assayist has often been called upon thus to determine the best of a series of mixtures for a cylinder oil, for example, or for an engine or a spindle oil. By this method the quality of the oil has sometimes been improved for a special kind of work more than one hundred per cent.—*Mr. Robert H. Thurston in Ex.*

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GROUND pine shipped from Hersey. Mich , to Detroit, for holiday decorative purposes, brings $50 a ton.

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W. E. SKILLINGS, of Bethel, Me., spool manufacturer, has a contract to ship 2,000,000 feet of spool wood to Scotland.

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FOR the first time in many years, when the mills shut down at Alpena, Mich., the river there will be nearly cleared of logs.

## STEEL SLEEPERS.

The President of the Civil Engineers of Ireland, in his annual address to the institution remarked :—"The introduction of steel sleepers on our railways is one of those modern improvements which is gradually coming forward. The success of both iron and steel sleepers has been so complete in other countries, where they have been in use in large quantities for lengthened period, that it seems almost strange that their adoption here should have been so long delayed, and that we should have continued to import vast quantities of timber from the Baltic when we had within our own shores the means of making a better and more lasting article, and further of creating a demand at home for materials at a time when foreign competition has made sad havoc with our steel manufacture. The method of fastening the rail to the sleeper has formed the subject of numerous patents, but nearly all of those which depend upon the use of bolts and nuts have been found to shake loose in time. A wrought-iron chair riveted to the sleeper seems to withstand the effects of vibration, and enables the rail to be held in position by means of the ordinary key. There are also several forms of sleepers in which a portion of the sleeper itself is turned up to receive the rail, and thus to form a kind of chair into which a wedge can be driven On some of the Indian railways where the iron sleepers are used, a wooden wedge has been driven under the rail, with the idea of giving additional elasticity "

## ARTIFICIAL WEATHERING OF WOOD.

In an article on the preparation of wood for car finish, the *National Car Builder* mentions a Japanese method of treating wood for backgrounds of ornamental work which it regards as well worthy of attention. It consists, it says, in moving the softer portions of the fibre so as to leave the remaining grain in high relief—a sort of artificial weathering by which the softer portions are worn away. The method has not been very clearly described, but it appears from the information given that materials like Dutch rushes are employed to scour or grind away the surface. The boards are sometimes quarter-sawed, but more frequently they seem to have taken nearly through the heart, and at a small angle with it. This gives long sweeping curves to the grain. After the required relief has been attained the wood is filled. The final coats seem to be a hard wax finish without a polish. For panels the effect is superb. As a background for metal work in relief, or for carving it would be difficult to find anything richer. To produce such work does not appear very difficult. Although the cost of such panels in Japan is very great, they need not be expensive here. The hand labor necessary for wearing down the wood may be easily replaced by machinery. The desired effect would then be obtained as well as easily. Probably the same results can be obtained by the use of the sand blast or with steel brushes. The first car builder who introduces this style of ornamentation will have something not only unique but beautiful. In many respects it would be more attractive than the stamped leather and the lincrusta now so fashionable. As patterns for stamped leather, these wood designs would be very desirable, and if we cannot have the original, it might be possible to get an imitation by the electrotype process which would answer every purpose.

## REDUCTION OF THE SWEDISH EXPORT.

The management of Stockholm Wood Export Union has again begun its labors, says the *Svensk Travaru Tidning*, to endeavor to bring about the absolutely necessary agreement among exporters for a diminished output for next year. So far the union has not definitely decided on the means for the reduction, but as the work is already begun, all might well be settled before the meeting in January.

As it is well known what great trouble the managers had to bring about the last convention, and how nearly it was upset by the attitude of a few members, we hope that exporters, seeing the use of the reduction this year, will meet the management, and as much as possible lighten its work. The advantages obtained by this reduction are for every right-minded individual evident enough, as the prices obtained would hardly have been got had not foreign buyers known that a seriously-meant agreement had been entered into, and that stocks would be reduced. If one compares wood prices with those of other goods, it will be found that although the wood trade cannot boast of a really good year, yet it has been relatively a fairly good one. From all consuming countries the news has been continually reaching us that building schemes are neglected, and that the disposal of wood goods was extremely limited ; further that houses which formerly speculated are now compelled to buy only just what they want. But in spite of all this prices have been tolerably good, and those who carefully and justly think over things must certainly be bound to admit that it was the confidence this last convention of wood exporters inspired abroad that has been the [illegible]

With such conditions before our eyes we hope that exporters as numerously as possible will support the proposition the management shortly intend to bring forward.

From several quarters in Finland we have heard that exporters there have partly decided on coming to an arrangement about reducing the export next year, and partly intend to support the Swedish exporters' convention. Should, therefore, the Swedis Export Union be supported by the Finns, we believe the management would spare no efforts to attain such an object. Certainly the Finnish export up to the 31st of August last shows a reduction of 31,000 standards, as compared with the same time last year, but compared with 1883 the reduction is only 1,173 standards, and one cannot yet judge fairly, as shipments as not yet over, and the figures for September and October are wanting. We, therefore, take the liberty to exhort our Finnish friends to carefully consider the necessity of reduction, and it possible to meet the Stockholm Export Union one or other way.

## THE ECONOMY OF FUEL.

K. K. Clark in his work upon the economy of fuel says, "that only two methods present themselves, by which the supply of air and the wants of the furnace can be made to correspond —either both must be made constant and regular or the fluctuations of one must be made to coincide with those of the otner," and he proposes to achieve the desideratum sought by an increased supply of air at the coaling by throwing open a sliding valve in the face of the door which immediately commences closing slowly and automatically, and affords a greatly diminished supply of air to the furnace in harmony with the greatly diminished requirements of the fuel. The area valve, and the period of time throughout which the act of closing is to be prolonged being adjusted according to the nature of the coal and the average quantity supplied at at one time. The outer furnace should be double and the air should pass into the furnace through a series of perforations in the inner plate. By this arrangement three important points are secured. First, the heating of the air ; second, its subdivision into minute jets ; and third, the keeping of the outer surface comparatively cool and thereby both economizing heat and preventing its radiation outwardly to the attendants.

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THE largest tree that has ever been manufactured into lumber at the Champion Mills was sawed up rocently. The tree made six logs, each log being 16 feet. The first log scaled 4,786 feet. The tree was sugar pine, and made a fine quality of lumber. The total number of feet in the tree was 22,632.—*Marysville, Cal., Appeal.*

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BUT very little hardwood lumber has been manufactured by the Saginaw river mills this season, the condition of the market not offering sufficient encouragement to operate extensively. In 1882 the hardwood cut of the Saginaw river mills was 24 649,900 feet ; in 1883, 32 741,870 feet, and in 1884, 14 061,829 feet. At the close of last year there was on hand 12,051,500 feet of hardwood stock.—*Courier.*

### CARE OF BELTS.

Karl Morgenroth, a mill-owner at Pflanzwirbach, Germany, warns millers against cleaning their belts with warm water after taking them off the pulleys Belts treated by him that way, though profusely greased immediately after the process, shrunk so much that it was impossible to replace them, and a piece of leather had to be inserted by means of "Harris" braces. Little by little the belts would expand to their former length and the inserted piece had to be removed. The whole thing was very annoying and much time was wasted. Therefore Mr. Morgenroth recommends, when belts require being cleaned and greased, just to leave them where they are. Some day, when the mill does not run, the dirt sticking to the belt is removed with a blunt knife and a sharp brush. Then the miller will make the belt run slowly, and while in motion grease it thoroughly by means of brush on both sides. The pulley will become besmeared with grease by this method, but it will soon recover its polish by rapid running The oiled belt will perhaps slip at first, but that need not trouble the miller. As soon as the grease has been absorbed in some degree by the belt, the slipping will cease at once. Mr. Morgenroth used to grease a pretty long belt, fourteen centimetre wide, even while the mill was in motion; but the grease must be applied only in small quantities.

### THE HENDERSON LUMBER CO.

On the 4th of September, 1885, letters patent were granted by the Quebec Government, incoporating the following gentlemen as the Henderson Lumber Co (Limited):—D. H. Henderson, C. H. Walters, Norman Henderson, Selkirk Cross, of Montreal, and A. H Henderson, of Baltimore, with full powers to own saw and lumber mills, timber limits, etc. They began operations at Montreal with a paid-up capital of $100,000, where they have secured the premises formerly owned by Henderson Bros., and are now carrying on the business in all its branches. The mill property is situated on William street and is bounded on the West side by Guy street and St Thomas street on the east; the rear extends to the canal. The office, 342 William street, is a brick building, almost in the centre of the property, where a large staff of clerks are employed. Adjoining the office are several dwelling houses owned by the company and occupied by some of their workmen, where they furnish accommodation for a large number of horses, wagons, sleighs, etc. All their wagons, sleighs, etc., are manufactured on the premises. Turning the corner, an extensive timber yard is seen which is presently stocked with a valuable assortment of flat and square timber, of all sizes, ready to be cut into "dimensions" as ordered. Proceeding onward, we come to the canal, where the company has a basin, where barges are loading and unloading their cargo of lumber at the docks, and where large quantities of logs are "boomed" convenient to the mill. On facing north the mill is brought into view. The first point of interest on the ground floor is the immense engine, 200 horse power, said to be one of the finest of its kind in the city. It is certainly a beautiful piece of mechanism, working noiselessly, without jar of any kind, and turning with ease one of the largest driving wheels ever made in this country. An idea may be formed of its size by the following figures: 32 in face and 14 feet 6 in. diameter. Steam is generated within three huge boilers and the fuel used is the sawdust from the various saws, conveyed by a patent apparatus to the boiler house. Within the building on the first floor is to be heard the whizzing sound of several planing, moulding, and other machines at work, while overhead the huge logs are brought up by an endless chain from the canal basin, and introduced to several circular saws revolving rapidly, and very soon fashioned into planks of the required dimensions, and so carefully is the business conducted that almost every particle of waste is utilized in some way The rough sides of the huge logs are passed to a boy who selects the best and cuts them into lengths for the shingle machine, and others unsuitable for that purpose are thrown aside to be used in the box factory, while other portions, too small, one would think, to be of any use, are made up into angles for rolling barbed wire upon Opposite the main building stands the box factory where quite a number of men and boys are at work, making boxes of all sizes and shapes. This building is also full of machinery, circular, band and other saws, and here also are manufactured large quantities of headings. Adjoining this is the blacksmith shop, where all their horses are shod, and a wheelwrights' and painters' shop are in close proximity. The premises are carefully guarded against fire, and a further precaution is taking by having a hydrant in the yard with hose hanging beside it, sufficient to direct a stream towards any part of the building. The buildings and yards cover nearly 20 acres of ground and for some distance on each side of the mill nothing but lumber meets the eye. In addition this company have a lumber yard at 130 St Constant street, where local orders are filled without the necessity of going down to the mill. This company employ from 150 to 200 hands, so that some idea can be formed from this as to the extent of their operations. At Roxton Falls they own another mill which is well furnished with perfect machinery. Steam engine 65 horse power, gang, circular and other saws. Shingle and stave machines and clap board machines turn out large quantities of sawn lumber. They have here a siding connecting with S E. Counties Railroad, for shipping lumber, so that it can be sent to all parts of Canada or the United States. Such enterprise as this deserves especial mention as it cannot be denied that the lumber interest is one of the utmost importance to this province especially, and it is satisfactory to note the progress being made in this direction, and from the energy, business ability and enterprise connected with this, the Henderson Lumber Co, it is fair to predict for them a successful career The Messrs. Henderson's are well and favorably known as lumber merchants of long standing, and Mr. C. H. Walters, the Sec.-Treas, is acknowledged as one of the ablest financiers of Montreal. Having received his business training with the well known house of Cuvillier & Co., "it goes without saying" that he is thoroughly posted in his particular duties. We wish the new concern every success in their enterprise.—*Montreal Herald.*

### CANADA FOR THE CANADIAN.

Under the above heading the Montreal *Star* thus refers to a question of importance:—

"A correspondent of a Hamilton paper says that wide tracts of lumber land in Western Ontario have been boughtup by Michigan firms, who intend denuding them of their pine, which is to be rafted across Lake Huron and sawn into lumber at the Michigan mills.

"In this way the value of these forests to Canada will be minimized All the employment given by the mills in transforming this raw material into lumber will go to Michigan, and the products of our own woods will be brought into competition with the material turned out by their own mills.

"As long as the Ontario Government persists in selling in place of preserving its forests, Americans cannot be prevented from buying Canadian timber limits, but the Federal Government can place an export duty on rough timber and force the Americans to either get their logs sawed by Canadian mills or build mills of their own this side of the line."

On the same subject the following letter is published in the Toronto *Mail*:—

SIR,—It is an established fact that the American saw mill owners in Michigan are outbidding us for timber limits in Ontario with the view of rafting our saw-logs to their mills, there being only $1 duty, I understand, on logs, whereas the duty on lumber going into the States is $2 per thousand feet. The effect of this is that our mills, which give employment to a very large number of workingmen, mechanics, etc., are being deprived of the logs, and in a few years will not be in a position to give employment to these men, and when this time arrives they will have to go to the States to earn their living

Now these Michigan mill owners represent the party that opposed the duty being taken off Canadian lumber and will continue to do so as long as they have lumber to sell. As a large manufacturer of lumber, I look forward to the time when the supply of logs in Michigan will not be equal to the demand, and then the mill owners in that State would have no object in opposing the removal of the duty on lumber. That time had nearly arrived when I found I was to be disappointed, as they are getting their logs from Ontario. I think that the Dominion Government are not protecting the manufacturer in this case, and that they ought at once to put an export duty on logs going into the States equal to the duty put by the States on our Canadian lumber.

Yours, etc.,
MANUFACTURER.

Lakefield, Dec 2nd.

### HOW AXES ARE MADE.

In the manufacture of axes, says the Pittsburg *Times*, the material passes through twelve different operations before it is ready for labeling and boxing. At first it is a rectangular piece of iron, about three-fourths of an inch thick, three and one-half inches wide, and about six inches long. The bit is of steel, and in some instances is inserted in a slit made in the iron, and in others it is drawn over the edge of the iron There is a growing demand for axes made entirely of steel. The most important part of the process of manufacture is tempering. "This is really where the axe is made," said a manufacturer The grinding and polishing is the most laborious part of the process. It is here that the rough, irregular shaped semblance of an axe is ground and polished until it is as bright as a mirror. It is said that the work will prove fatal within five years to any man who pursues it steadily. The air is filled with imperceptible dust from the stones, and many of the workmen tie small sponges saturated with water over their nostrils.

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The Limits are supposed to contain about two hundred millions superficial feet. (an estimate is now being made.)

The Timber is mostly Oregon Pine of an excellent quality. The average haul, only about half a mile to floatable water. The run thence to mill, 30 miles.

Full particulars furnished on application.

W. SUTTON
1Ltf Walkerton, Ont.

Johnston's Fluid Beef

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The CANADA LUMBERMAN is filed at the Offices of MESSRS SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

*PETERBOROUGH, Ont., DEC. 15, 1885.*


IT is said that owing to the dullness of the lumber trade, and the falling off of timber dues, the Ontario Government is threatened with a deficit.

A FIRM at Georgetown, Del., has a contract furnish 5,000,000 wooden pie plates with crimped edges, eactly like the tin plates. The advantages claimed for the wooden article are that they will not allow the pie to burn nor the lower crust to become soggy.

THE eminent botanist, De Candolle, set the age of the elm at 355 years. The ages of some palms have been set down at 600 to 700 years, that of an olive tree at 700, that of a pane tree at 720, of a cedar at 800, of an oak at 1,500, of a yew at 2,880, and of a baobab tree at 5,000.

ESTIMATES put the whole log cut of the coming winter upon the Mississippi and its tributaries at 550,000,00 feet. The estimated force to be employed in the work this winter is about 5,000 men and 2,000 horses and men for hauling, of which number about one-half are now at work.

THE mill owners of Peterborough are engaged in a legal fight with an Anti-Sawdust Association, a society formed for the purpose of prosecuting mill owners who deposit mill refuse in the river. The case has been before the Police Magistrate several times and adjourned, and a rule has been applied for in the High Court to order the Magistrate not to adjudicate on the cases.

THE Montreal *Star* says:—A lumber merchant from Quebec states that the market there is very much overstocked, last season's pine being still in first hands. The past season has been dull and unstatisfactory, and the future outlook is not by and means good. The merchants in Quebec seem to anticipate an overnroduction on the part of western lumbermen.

LUMBERING operations are being briskly carried on in the woods, says the Parry Sound *Star*, not withstanding the unfavorable weather. The different firms doing business in this village, viz., The Parry Sound Lumber Co., the Midland and North Shore Lumber Co., and Conger Lumber Co. are all getting out very large quantity of logs during the winter, either by their own camps or by letting contracts to jobbers.

BLACK walnut can now be manufactured very cheaply. One part of walnut peel extract is mixed with six parts of water, and the wood is quoted with the solution. When the material is about half dry a solution of bichromate of potash with water is rubbed on it, and then your walnut is ready. In this way excellent walnut is can be made from poor pine, and it is said to defyrdetection except upon very close examination.—*Ex.*

SAYS the Eastern Townships correspondent of the *Montreal Gazette*:—The Nantais Mill Company will get out a million feet of logs in Woburn this season. It is rumored that the Cookshire Mills Company will lease next spring the mill of the Berlin Mills Company at the foot of Lake Megantic. At Lake Megantic the lumberman have commenced to build their shanties, and considerable lumber will be taken out this winter, G. B. Hall & Co. making from three to four million feet, and Shaw & Sons, on the Dead River, five millions.

## ARGENTINE REPUBLIC TRADE.

THE annual official report of Mr. J. A. Maguire, Consul-General of the Argentine Republic in Canada, is an interesting document. It shows that the exports of wood goods, from ports on the River St. Lawrence, this season, amounted to 32,000,000 feet B. M., representing in valve about five and one-half million of dollars. The exports of cordage, canned goods, and other sundries, though not so large as last season, due to the increased value of lobsters and other canned fish, still amounting in value to about one hundred and thirty thousand dollars. Several ports in Nova Scotia and New Brunswick have this season, for the first time, exported considerable quantities of lumber and other goods to Buenos Ayres, and, due to the fact that these ports are open to navigation during the whole year, they promise to prove very damaging rivals to the sea ports of Maine and Massachusetts which, until quite recently, almost monopolized the South American wood trade during the winter months. British Columbia has also entered the list as an exporter of lumber and canned goods, and owing to the existence in that Province of an immense belt of timbered land from which lumber is produced at a very small cost, this country threatens to offer considerable opposition in the export of wood goods to the ports all along our coast.

Taking Canada's year's business in the aggregate, it is an improvement on that of last year although the shipments from the St. Lawrence ports show a slight falling off. We have still, however, great strides to make in order to occupy the position in the South American lumber trade, which as the wood-growing country *par excellence* we should. As against the total exports of lumber into the Argentine Republic last year amounting to nearly 190,000,000 feet, Canada only shipped, direct from her ports, about 55,000 000 feet. A large quantity, it is true, of wood grown and cut in Canada (and with which she is not credited) is carried over the railways to points of shipment in the United States, whence it is despatched by our enterprising American friends to Buenos Ayres and to other ports in the fast-growing and prosperous country, the Argentine Republic.

### Anti-Corrosive Paint.

Take equal parts, by weight, of whiting and whitelead, with half the quantity of fine sand, gravel, road-dust, and a sufficient quantity of colouring matter. This mixture is made in water, and can be used as a water colour; but it is more durable to dry it in cakes or powder, after mixing, and then use it as an oil-paint by grinding it again in linseed oil. The preparation of oil recommended for the purpose is, 12 parts by weight of linseed oil, and 3 sulphate lime, well mixed. One gallon of this prepared oil is used to 7 pounds of the powder.

## VACCINATION AND SHANTIES.

### The Steps the Government Took—How One Lumberman Acted.

When the men began to move towards the woods it was feared that small-pox might find its way into the shanties. The *Canada Lumberman* sounded a note of warning on the subject, and the Government took the matter up, sending out a circular which was soon followed by the following additional circular:—

"TORONTO, Nov. 16th, 1885

"DEAR SIR,—In addition to the urgency of this matter of vaccination of the men of lumber companies, as pointed out in the circular dated November 6th, and addressed to you, I have been solicited by various lumbermen in the Province, and requested by the Hon. T. B. Pardee, Commissioner of Crown Lands, to push the work as rapidly as possible. Kindly do not fail to give me an exact list of the men employed and the number of them recently vaccinated, at your earliest possible convenience.

"I remain,

"Your obedient Servant,

"P. H. BRYCE,

"Secretary of the Provincial Board of Health."

Mr. James Irwin, of Peterborough, previous to receiving the circular from the Board of Health, had written from Quebec giving instructions to have the men in his employ vaccinated. The following report shows how his orders were carried out:—

"HALIBURTON, ONT., Nov. 30th, 1885.

"*To James M. Irwin, Esq., Peterborough, Ont:*

"MY DEAR SIR,—Your letter of the 21st inst., with circular attached, from the Provincial Board of Health, to hand.

"In reply I beg to report that I have taken the following steps in regard to carrying out the instructions contained in your letter to me, dated at Quebec, 23rd September last, which to quote from said letter were as follows:—

IMPOTANT.—There is no doubt there is every chance of Small-pox breaking out in shanties this winter. Therefore, as soon as possible, you better arrange to have every man at present in shanties vaccinated, and after the date you arrange for this let no man go up to shanties without being vaccinated. "*Prevention is better than cure.*"

"Immediately on the receipt of above named letter I got Dr. Spilsbury, of Halibuton, to vaccinate myself, and watched the operation carefully. I then purchased 100 vaccine points (quills) from Dr. Spilsbury, and 150 points more from Perrins, druggist, Lindsay, and on the 28th, 29th, and 30th of Sept. last, I vaccinated all the men then in the shanties. I found that the majority of the men were quite willing to undergo the operation. Those who were not willing were mostly French Canadians. Some of these I reasoned with and got their consent and the balance I vaccinated by force.

"On my next trip around the shanties some two weeks later I examined every man and found that only about 20 per cent. of Spilsbury's and 80 per cent. of Perrin's points had been successful.

"I then re-vaccinated those who had not been successful, and also any new arrivals. I found that it was next to impossible to get new arrivals vaccinated before they reached the shanties.

"In addition to the above I may say that on my rounds to the shanties every two weeks since I have carried out the same programme Some of the men I have vaccinated three and some four times before being successful, but all are now O. K.—with the exception of the fifty men you sent up last week. I have no points on hand to do these men, so please send up 100 points.

"In conclusion I may say that in addition to the men in the shanties I have successfully vaccinated all the persons employed and living at your store and boarding house at Halibuton and this place. Also the wives, children, etc, of our foremen, clerks and men living in this district.

"The following are the number of men now in each shanty in my district, north of Haliburton, in the townships of Havelock and Eyre, which I have the honor to superintend for you:

| | Men |
|---|---|
| Shanty No. 1, Thomas Chittick, Foreman | 29 |
| " " 2, Geo. Johnson " | 30 |
| " " 3, Thomas Preston " | 31 |
| " " 4, Patrick Maher " | 38 |
| " " 5, Charles Austin " | 36 |
| " " 6, David Mitchell " | 27 |
| " " 7, Moses Brisbois " | 29 |
| Creek Improv'ts, W. H. Anderson " | 5 |
| Havelock Farm, James Goulias, Bookkeeper. | 3 |
| Total | 228 |

"Yours Respectfully,

"GEO. S. THOMPSON,

"Superintendent."

This thorough manner of protecting the men and the country from small-pox was acknowledged by the Board in the following letter:—

"TORONTO, Dec. 5th, 1885.

"*To J. M. Irwin, Esq., Lumber Merchant, Peterborough:*

"DEAR SIR,—I received your letter and report *re* vaccination of the men in your lumber shanties, and am much pleased at the thorough manner in which the work has been done. This is the way to prevent the encroach of Small-pox.

"I thank you in the name of this Board for your promptitude in this matter.

"I am, Dear Sir,

"Yours very truly,

"PETER H. BRYCE,

"Secretary."

## THE BUSINESS FUTURE.

All signs now indicate that a decided change may soon be expected in the movement and volume of trade. Stagnation has become irksome in the centres of finance, and as a consequence, speculators now show a desire to force a change by bulling shares and stocks of such classes as will best bear the uncertainty of maintaining an advance. Shares in manufacturing companies will next feel this movement and a moderate response may be looked for within the next few weeks. This will undoubtedly result in more activity in sales, as warehousemen and agents must help the push on prices. Before it reaches the rank of consumers, however, a partial reaction will be felt; wages must rise to a higher level before workers will be inclined or have ability to purchase more than to supply immediate wants.

But we are well assured that the tide has turned, and those who get into the current early will soonest take on headway. Some journals express the opinion that delay in revival of trade must still take place, because of the English elections. This will be the case as regards England, and such European nations as are so anxiously awaiting the result of those elections, but will not hold to any appreciable extent for the United States, and should not for Canada. Our merchants and manufacturers must realize that the childhood of Canadian commerce is already past, and the treatment demanded for the future must be suited to its riper condition and its wider interests. They must act more boldly in seeking to open foreign markets.

In this course will be found the true and natural cure for the chronic dissatisfaction which no doubt exists in the Maritime Provinces at the larger share of interest and attention necessarily given to the development of the western territory.

Keep our vessels busy in carrying merchandise, as well as grain, and seaport towns can stand the drain of ready money to pay for the productions of the Upper Provinces.—*St. John, N. B., Trade Reporter.*

## TO GLUE LEATHER TO IRON.

There is a constant inquiry as to the best plan for fastening leather to iron, and there are many recipes for doing it. But probably the simplest mode, and one that will answer in a majority of cases, is the following: To glue leather to iron, paint the iron with some kind of lead color, say white lead and lamp black. When dry, cover with a cement made as follows: Take the best glue, soak it in cold water till soft, then dissolve it in vinegar with a moderate heat, then add one-third of the bulk of white pine turpentine, thoroughly mix, and by means of the vinegar make it of the proper consistency to be spread with a brush, and apply it while hot; draw the leather on quickly, and press it tightly in place. If a pulley, draw the leather around tightly, lap and clamy.—*Ex.*

# HARRIS, HEENAN & Co.

124 AND 126 QUEEN STREET, - - - MONTREAL.

## Patent Stitched–Steam Power Pressure Stretched–Oak Tanned

TESTIMONIAL.

IRA GOULD & SONS, CITY MILLS, Nov. 18th, 1884.

*Harris, Heenan & Co.*

DEAR SIRS.—Your Patent Sewed Belt has been in use in our "City Mills" for some time. We are thoroughly convinced of its superiority over any belt, American or Canadian, we have used in an experience of over 35 years. It stretches so little, and gives so little trouble, that compared with riveted belting, the sewed belt saves double its price in time and laces saved. We heartily recommend it to manufacturers as the cheapest and most satisfactory belt in the market.

Yours respectfully,
W. C. MARSHALL,
Mills.

TESTIMONIAL.

PECK, BENNY & Co., CANAL HORSE SHOE AND NAIL WORKS, MONTREAL, 16th Nov. 1884.

*Messrs. Harris, Heenan & Co., Montreal.*

I have pleasure in recommending the belting manufactured by Messrs. Harris, Heenan & Co., of this city. After thoroughly testing it, I find it greatly superior to any belting that has come under my notice and fully equal to all they claim for it, and certainly without an equal for cross or double belting.

CHAS. R. ELLACOTT.
Supt. H. S. & H. N. Dept.

# LEATHER BELTING!

***The Best, therefore the Cheapest, Belt in the market.***
***Replaces, when used, all others.***
***More Pliable and Durable, especially at the splices.***
***Stretches but little, always retains it original wid h.***
***Superior for Cross or Double Belts.***
***Runs straight and true, does not start at the laps.***
***Single equals medium double.***

## 25 per cent Stronger, 33$_1$ More Lasting, and 12$\frac{1}{3}$ Heavier, than any other Leather Belt.


### AUSTRALIA.

Messrs. Lord & Hughes' monthly circular regarding timber and building materials, dated Melbourne, Oct. 20th, says :—

Since our last on 15th ultimo, we have to report a further decline in nearly every description of timber, owing to heavy arrivals and the desire of importers to realize, thus Baltic deals, Oregon and American lumber, show a decline as indicated in our report of public sales, Baltic flooring showing no improvement.

We are happy to report that the deliveries from yards continue, showing but little, if any, falling off in consumption, while the continued sales of properties cut up into building allotments, which are made weekly, seem to indicate that consumption will continue ; for this purpose money is easily obtainable through building societies and other financial instutions.

RED DEALS.—Imports : 1,310 pieces. These arrived in Broderfolket, from Christiania. Sales by auction have been made ex Felix, Veritas, Fritzoe, Frigga, rnd cut deals ex Broderfolket ; DOM 11x4, realizing 5½d. per foot 9x3 ; 11x3, at 5 11-16d. ; 9x3, at 5d. ; DDD, 11x3, at 5⅝d. ; 9x3, at 4⅝d. ; CxxB, 9x3, at 3⅝d. We understand the last advices from England report engagements of deals comparatively light for the season, and as the first two cargoes of the season, ex Aracan and Anna, have arrived in Adelaide, and are landed there, values here should improve.

SPRUCE DEALS.— Imports : 1,330 pieces spruce ; 1,202 pieces Baltic white. Arrivals have been Colorado, from Boston, and Broderfolket, from Christiania. Both these lines have been quitted publicly.

OREGON TIMBER.—Imports : 1,426,910 feet super. The arrivals have been Sir Jamsetjee Family and Imperater. Sales publicly have been cargoes ex Enterprise, on 22nd ult., and Sir Jamsetjee Family, on 16th inst., prices for the latter ranging from £6 15s. to £15 15s. The cargo ex Imperator is advertised for sale on 23rd inst.

LUMBER.—Imports : Clear pine, 309,270 feet super ; white pine shelving, 655,112 feet super. ; T. and G. ceiling, 44,288 feet super. Arrivals have been Wilhelm and Ivy, from New York ; Colorado, from Boston ; and steamers from Adelaide. Sales by auction have been made of parcels ex Wilhelm and Colorado, in addition to various lines ex Antioch, Llewellyn J. Morse, Penobscot, S. F. Hersey, and steamers from Adelaide. Prices are lower. The shipment ex Ivy is advertised for sale on the 23rd inst.

REDWOOD.—Imports : 20,000 feet super. This parcel arrived ex steamer, from Sydney. The cargo ex Alice Muir was offered on 29th ult., but only about 62,000 feet were sold at £10 15s.

FLOORING AND WEATHERBOARDS.—Imports : 6,706,850 feet lineal. Arrivals have been Thirza, Emerald, Guldregn, Subra, and Bertrand, from the Baltic, and steamers from Adelaide. Sales have taken place by auction ex Rigi, Subra, Broderfolket, Emerald, and Guldregn. Prices realized were as follows :—Red, 6x1½, 10s. 6d. to to 9s. 9d. ; 6x$\frac{7}{8}$, 8s. 9d. to 7s. 9d. ; 6x¾ bead, 6s. 6d. to 6s. ; 6x$\frac{5}{8}$ bead, 5s. 3d. ; 6x½ bead, 5s. 3d. and 5s. ; 4-out weatherboards, 5s. 3d. to 4s 7d. ; white, 6x1$\frac{1}{8}$, 9s. 9d. to 9s. ; 6x$\frac{7}{8}$, 8s. to 7s. 6d. ; 6x¾ bead, 6s. to 5s. 6d. ; 6x$\frac{5}{8}$ bead, 5s. 6d. to 5s. 4d. ; 6x½ bead, 6s. 6d. to 5s. ; 4-out weatherboards, 5s. 3d. to 5s.

KAURI PINE.—Imports : 1,024,451 feet super. The arrivals have been, Killarney, Stanley, Grassmere and Albert the Good. Sales publicly have been cargo ex Eillan Donan, and Flitches ex Killarney, the logs ex latter vessel having been quitted privately. Cargo ex Stanley is advertised for the 23rd instant.

CEDAR.—Imports :—Nil. Sales have been made at auction of various parcels ex coasting steamers.

DOORS.—Imports : 2,360. No sales by auction have transpired since our last. The heavy arrivals have had a depressing effect on the market.

LATHS AND PICKETS — Imports : Laths, 9,-903 bundles ; pickets, 3,658 bundles. Various sales have taken place publicly.

SLATES.—Imports : 533,041 pieces. Arrivals since our last have been—Wilhelm and Ivy, from New York ; Colorado, from Boston ; Darling Downs, from London ; Beecroft, from Liverpool. The only public sale has been of ine 22x11 blue Bangor Penrhyn slates, ex Langdale, at £11 5s.

PLASTER.—Imports : 1,485 barrels. Sale ex Wilhelm, 250 barrels King's Windsor Mills plaster, medium size ,at 13s. per barrel.

CEMENT.—Imports : 12,862 barrels. The arrivals continue heavy and the market depressed. Favorite brands are quoted at up to 13s. 6d.

GALVANIZED IRON.—Imports : 1,303 tons. The market is overstocked, and parcels difficult to quit except at low rates. Best brands are quoted at £17 to £16 10s.

EXPLANDTION.—Red deals and spruce deals are sold at per foot of 9x3 ; T. and G. flooring at per 100 feet running ; Oregon timber, redwood, clear pine, shelving, ceiling, per 1,000 ft. super ; Kauri pine and cedar logs at per 100 feet super ; laths, pickets, and slates at per 1,000 pieces. Shorts are all lengths under 12 feet.

### GLASGOW.

The *Timber Trades Journal* of Nov. 28th says :—For the past week there has been no auction sales of wood held here by brokers. At present while the elections are creating a stir in town, many buyers would be hindered from coming to the sales, and there would be small likelihood of strong competition in such circumstances.

The imports during the week consist of sundry parcels of wood goods (chiefly oak) per steam liners from New York, etc., and a large cargo of Canadian deals. The arrivals of pitch pine at Clyde ports since the beginning of this year, up to the present time, are not far short of last year's total at the corresponding date, the amounts being : 1885, tonnage employed in conveyance, 28,929 tons ; and in 1884, 31,121 tons. At Grangemouth, on east coast, the imports of pitch pine during the current year are represented by a carrying tonnage of 5,270 tons, and in 1884, 5,971 tons.

It is gratifying to learn that a fresh impetus has been giving to shipbuilding on the Cly de the industry on which the timber trade here chiefly depends.

Among orders recently booked have been the Spanish gun boat by Thompson, Clyde Bank, six large steamers (2,600 tons each) by Scott & Co., Greenock, and at Dumbarton various important orders have been secured, which will considerably relieve the depresssion that has been felt of late in that town. In the upper reaches of the river also a good many fresh orders have been received.

### LIVERPOOL.

The *Timber Trades Journal* of Nov. 28th says :—It is hardly necessary to say that what business has been done during the week has been limited in extent and devoid of interest, if we except the mahogany and other hardwood saies of Thursday and Friday last.

The elections are for the present distracting attention from business, and to such an extent is this carried that whilst the contest in Liverpool were proceeding it was practically suspended, and it point of fact some markets were closed for the day.

It is therefore a matter for congratulation that the import continues to be upon a moderate scale, few cargoes of timber or deals having come to hand for the past few days, and it is daily becoming evident that we shall not have more than an average stock to carry at the end of the import season, which is now so rapidly approaching.

### Important Discovery in Steel Manufacture.

An improvement has been made on the Bessemer steel process at the Edgar Thompson Steel Works, Pittsburgh, Pa., which, it is said, will have the effect of making Bessemer steel equal in quality to crucible steel, while it will cost only about one-tenth of the price. The change consists in thorough mixing of spiegle iron or manganese with molten iron in a ladle, so as to uniformly carbonize it. Bessemer steel can be produced at a cost of a cent to a cent and a half per pound, while that made in crucibles costs at least 11 cents per pound.

## NAVIGATION OF THE ATLANTIC.

About two years ago it was publicly stated that the Trinity Board had appointed a pilot cutter to cruise off the Scilly Islands, chiefly south-west of them, in order to intercept and telegraph arrivals of ships homeward bound, which had reached that longitude, the fee to be a uniform charge of £5 per vessel. But we do not remember to have heard of it since, nor seen mention of it in any publication, nor can we find any one who is able to say what measure of success has attended the experiment.

The event has come to memory again in connection with a much larger idea, which may be of considerable use to the timber trade as regards its shipping, and which is said to be under discussion in the United States of America, at the present time, as a feasible object. And what with the wonders of steam and electricity (and who knows what besides may yet be discovered?), it is rash to pronounce anything impossible that science and mechanical art are disposed to take under their charge with a view to bring it into practical use. The talk in question is as to the possibility of stationing a number of lightships in a certain longitudinal line between America and Europe in connection with an Atlantic cable in order to report all vessels that pass near, or that in thick weather want to know their latitude and longitude, or to obtain assistance; also to pick up the crews of wrecks happening far at sea. Doubtless great good might be effected by such an arrangement, if it could be shown that its accomplishment were within the bounds of human knowledge and ingenuity. The proposition is to station the vessels at a distance of about 200 miles from each other, so that no ship in difficulties or needing assistance, keeping to that latitude, need be more than 100 miles from help, refuge, or communication with the land, at one end or the other.

But when we talk of stations, the one apparently insuperable difficulty presents itself to the nautical mind There is a soothing suggestion in the mention of an ocean cable, it is true, but it will not bear a moment's investigation in reference to that which is used for telegraphing. As well might one expect to tether an Australian bullock with a piece of spun yarn; and no device for anchoring with saftey in the open sea, in 100 fathoms of water and upwards, has yet been discovered. Nor is it conceivable that any known appliance will keep a ship in a given point of latitude and longitude in all weathers. Of course by powerful steam machinery a good deal might be accomplished, and if driven from her regular position by a storm she might soon be brought back again. But in thick weather how would she find it? Then, again, there is the liability of these vessels being themselves run down by the mighty steamers rushing headlong through the tempest in thick as well as fine weather and their commanders thinking of nothing so much as how to make the quickest passage on record. The maintaing these vessels at their destined places in the ocean would be a service full of danger, compared to which that of coasting lightships is trifling, and the cost of the institution would swallow up a princely revenue, though by sub-division among the maritime nations chiefly interested that need be no barrier. There would be only about ten or twelve ships required, as the first one this side might be 200 miles to the westward of Cape Clear, which would be 15 degrees of longitude out of the 75 to New York, and another vessel stationed 200 miles this side of Long Island would run of nearly five degrees more. The remaining 55 degrees, allowing them to average 40 miles to a degree, would leave but room for ten more ships, or 12 in all. On the banks of Newfoundland the task would be easier, as anchorage can there be had 100 miles or more from land, and in the right track; but the lightship would have to be able to slip from her moorings in the not unlikely case of being, in the spring, liable to be overwhelmed by an iceberg. The Great Bank extends some 200 miles seaward from Cape Race, and the experiment might be commenced by fixing a suitable ship thereabout, which if there were no other on the proposed line would be of immense use to navigators from all parts of the world, as Cape Race is too much out of the regular track to Europe for vessels from the southward to make, without deviating considerable from their true course. But if a lightship were stationed even 50 miles south of it, on the system presupposed, no doubt every homeward bound pitch pine ship would endeavor to sight such a beacon in order to make sure of her reckoning, and to know exactly where she was, especially in weather which precluded all celestial observation either of the sun or stars, and many would be likely to want stores or gear, which the institution would be prepared to supply, without their needing to look for a port on that account.

Near the outer edge of the Great Bank of Newfoundland, which is just in the fair way of homeward bound vessels via the Atlantic, 26 to 30 fathoms of water may be found, where a large ship might hold to her anchors through any weather with suitable ground tackle, about latitude 43 deg., longitude 50 deg. (see Norie & Wilson's chart of the Atlantic, in which the soundings on the Banks are minutely laid down)

In the article to which allusion has been made, on introducing this subject, it was suggested that a ship of the largest size made be advantageously moored, within anchoring distance of Cape Clear, with similar object, and the Great Eastern was mentioned as the very thing for it, as being the nearest fabric yet afloat to a small island, or floating town, under the lee of which (600 feet in length) business might be carried on in almost any weather; and if we are not mis-informed some steps were taken to get up a company to buy her with that object, but on inquiry it was found that she had recently changed hands, and was not then for sale. So the matter dropped and was heard of no more. She has recently been again in the market, and was sold for a very inconsiderable price in proportion to her vast capabilities and appointments.

For rendering assistance to crippled steamers and other ships, supplying stores, communicating orders, and telegraphing arrivals, &c., without the need of ships going into port, such an institution, conducted on fixed scale of moderate charges, might become of great value to the mercantile as well as the shipowning community, and even to the Navy, and especially to Lloyd's and the other marine insurance offices, as every kind of nautical trade, even to ropemaking, might be conducted on board of her without interfering with the discipline of the ship, and in direct promotion of the objects for which she was stationed there. But would it pay? That is the question *ad rem*, to which an eloquent promoter would have to devote his attention. The concern might have to wait a little, possibly, for any important returns to the shareholders, but a very short time after the great ship taking up her position, well prepared for all exigencies, her fame might be expected to spread to the four quarters of the globe. And all shipmasters bound to England, or to either of the three channels, would, as a matter of course, receive instructions respecting her, as it might happen to many of them to save many pounds—in some cases perhaps many hundreds of pounds—by putting themselves in communication with her.

This is a mere *silhouette* of the possibilities which such an institution might include in its system of ocean utility, and to no interest would it be of more importance, perhaps, than to that of the timber trade, as every ship may might receive her orders by signal, in answer to her own signals, while passing by, before a good breeze, and often without occasion of laying-to for a moment, or even of backing a topsail.—*Timber Trades Journal.*

## CARE OF BAND SAW BLADES.

The band saw blades are usually very much neglected; but they should be kept sharp and in good trim if nice work is expected from them

For this purpose a straight file without any taper, slim and blunt, with round corners, will be found to answer admirably for the purpose, and will do tolerably straight and accurate work.

When filing a saw blade, the workman should try to file the teeth as uniformily as is possible; each tooth should be filed to a sharp cutting point, and the throat thereof should be filed back, that the under side of the tooth is slightly diagonal from the cutting point, and terminating in a round corner at the base of each tooth; this makes the blade very much stronger and less liable to break, as a sharp corner at the bottom of the teeth is apt to and very often is the cause of starting a crack which ultimately causes the band saw blade to snap off and brake. Another advantage obtained by filing the teeth in this way, is, that it gives them a slight lead and causes them to dig into, instead of crowding off from, the wood to be sawn.

When sawing with a band saw, do not crowd the saw, as it is injurious to the blade and shortens the life thereof.

Always select a blade suited to the work you want it to perform; if thick material is to be sawn, use a wide blade if possible; if thin scroll or bracket work is to be sawn, use a narrow blade, one that will readily allow small circles and the like to be worked with ease, and without too much binding on the blade.

Never work a saw blade after it is dull, but file at once, or substitute another blade until you have an opportunity to sharpen the same It is a good plan to always keep several saw blades in such a condition that one can instantly be called into service without any tinkering whatever.

The side guides for the band saw blade should be set close to the saw, yet not too close, or it will cause much friction on the blade.

Above all things, avoid getting any oil whatever on the rubber bands of the saw wheels, as this causes them to decay very fast, and is highly injurious.

If the tension on your saw blade is controlled by a weight and lever, see that the fulcrum pin is kept free from dirt or gum and is well oiled, that the tension weight can act quick and easy. In setting the tension weight, use the common sense your Creator gave you; and remember that a narrow blade working on very thin material does not require as much tension as a wide blade which works on thick material; set your weight which governors this tension to suit the work, and the blade as above specified Remember, that when you move the tension weight away from the fulcrum, toward the end of the lever, that you increase the tension on the blade, and by moving it toward the fulcrum, that you diminish the tension on the blade.

If the tension of your band saw blade is controlled by a spring, use your discretion likewise; so soon become accustomed to the proper setting of saw blades, and, when once acquired, will not easily be set aside.

Perhaps it is well to remark for the benefit of beginners, that the upper saw guides should not be set too far away from work; as close as convenient, is as good a rule as one can adhere to.—*Wood-Worker.*

## BOILER ROOM HINTS.

Do not force a boiler. If you do you are liable to soar upwards some fine day, and brick bats, hot water, steam and pieces of the over burdened boiler will go with you.

Many a man who is forcing his boiler should inspect the combustion chamber back of his bridge wall. He will often find it completely filled with dirt and cinders. To get into it he must get at a little cramped-up door behind the boiler. Let him cut a door directly out through the wall of the building. Then he can clean out the chamber comfortably and put water into it, while he takes out the dust. This should always be observed. Wet down ashes or dust and they will not fly up to clog tubes and lodge in the smoke stack.

Do not trust to steam for blowing out the tubes, nor trust to gum scrapers. Buy a first-class tube cleaner, and bribe the fireman to use it. Every fireman should know the value of clean tubes, yet many do not, or do not realize the full extent of them.

Clean up all the dirt around the boiler, scrape tubes and clean out smoke passages, and you can decrease the presence of the blast. It will not then throw coal out of the chimney. You can save 20 per cent by better care arrangement of even an old-fashioned plant, although, many times, 40 per cent. may be saved by putting in a new boiler and new engine, and a new chimney where the motive power is overworked.

We have seen smoke sent up in an 8x12 chimney when it really required a 12x16 chimney, but such work never pays. It is always cosely and runs a man behind. No matter how carefully a man may figure on everything else, here is a leak that is sucking good blood all the time.—*Hobart in the Cabinet Maker.*

## USING A SCROLL SAW.

The scroll saw has of late years become one of the most important tools used in the working of wood, and it is also one that few know how to manage properly. It is therefore possible that a few suggestions regarding its use may be of service to some of your readers. When we look at some of the wood as it comes from the scroll sawing machine, we find that the edges are quite rough and uneven, and the lines are very irregular and ill-shapen. If we compare the work with the original design we often find them very dissimilar. This is a serious fault and a man whose work shows it is also likely to be continually breaking blades, or getting the machine otherwise out of order. It takes considerable patience and practice to become a good scroll sawyer. It does not do for a man to become indifferent and careless when using this kind of machine. He must be alive to his work, and call all his artistic skill to his aid when sawing. If he is only cutting straight lines he must still be watching his work. He must hold the work solidly on the saw table, for much depends upon this. If the work is allowed to viabrate with the saw, it will not cut smooth and the blade is liable to break.

The work should be moved very steadily over the table, so that the feed will be as nearly uniform as possible. In sawing curved lines, the work should be held in such a position that the blade is not twisted, but is allowed to run free in the kerf. In sawing short curves and small circles we must not use too coarse a saw; in cutting a two-inch circle the blade should not exceed one-eighth of an inch width.

Sawyers often experience great trouble by the breakage of blades; this is due in a great measure to failing to give the blade the proper tension. If we stretch the blade too tightly a very slight movement of the work will cause it to snap, and if we leave it too slack it will bend back when it strikes the wood and will not cut fast. It will also bend sidewise and catch in the work, when it is almost sure to break. Merely stretch the blade so that all side motion is taken up, and the danger of overstraining is avoided. If the work is held solidly on the table and in the right position, there is no necessity for putting a strain of half a ton on a three-sixteenth blade.

It is when doing inside work that the great trial comes. The hole for the saw to go through should be bored, if the case will permit, at least twice the size of the saw This facilitates the putting of the saw through.

To save trouble and time, if the material is not heavy, we can put two or more pieces together when sawing, but we must be very careful to keep them from sliding over each other. It is best to lightly nail them on the outer edges and do the inside first.

In putting in the saw be careful to put the right end down. All saws are filed square on the lower edge of the tooth. The square edge should always be put down; this prevents the saw from raising the work in its upward motion. Be careful to keep the machine well oiled.—*J. W. F. in Saw Mill Gazette.*

---

On Nov. 18th Mr. Robert M. Ley's sawmill and bending factory at Watford, Ont., were totally destroyed by fire, started, it is supposed, by tramps, as the mill had not been running for three week. Loss, $7,500; insured for $3,000.

---

It is reported that at Lake Megantic considerable lumber will be taken out this winter; G. B. Hall & Co. making three to four million feet, and Shaw & Sons, on the Dead River, about five millions.

# Chips.

FOREST fires caused great loss south of Little Rock, Arkansas.

JOHN A. MORRISON, Fredericton, N. B., is rebuilding his mill, destroyed by fire a few weeks ago. The new structure will be 40x100 feet.

AT the close of the season there will remain in pile at Manistique, Mich., several million feet of lumber more than last year at the season's close.

CHICAGO is to have a World's Fair in 1892 to celebrate the 400th anniversary of the discovery of America. A company has already been incorporated at Springfield, Ill., for this purpose.

IT is estimated that the lumber left on dock at Muskegon, Mich., when navigation closes will not exceed 100,000,000 feet, as compared to 225,000,000 feet at the close last season.

THE mill of the Calgary Saw Mill Company, Alberta, is nearly ready to run. A tramway from the mill to the timber is about completed, and when that is done the mill will start.

THE shade of an oak at Yalaha, Fla., would cover 1 450 men, standing in contact. The mammoth tree is 25 years old, and is still growing.—*Savannah, Ga., News.*

### Catarrh—A New Treatment.

Perhaps the most extraordinary that success has been achieved in modern science has been attained by the Dixon treatment for Catarrh Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefitted, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh.—*Montreal Star.* 1y122.

The Napanee, Tamworth and Quebec railway will make application to Parliament for an amendment to their charter enabling them to change their original route.


## FOR SALE, TIMBER LIMITS & SAW MILL

THE MASKINONGE LUMBER COMPANY offer for sale their property consisting of Saw Mill at Maskinonge Bridge, P. Q., with a quarter mile of N. S. Ry. Station, also good facilities for shipping by water. Capacity of Mil 50,000 feet per day water and steam power; saws and belting all complete. Two hundred and forty square miles of limits situated about thirty miles from Mill, which are interseeted by a number of good driving streams, and are rich in Pine Spruce, Cedar, etc. Satisfactory reasons for selling out.

For further particulars appiy to

MASKINONGE LUMBER CO.

6t.15 Maskinonge Bridge P. Q

GRATEFUL—COMFORTING.

## EPPS'S COCOA

BREAKFAST.

"By a thorough knowledge of the natura laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating arround us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

Made simply with boiling water or milk. Sold only in packets by Grocers, labelled thus:

JAMES EPPS & Co., Homœopathic Chemists, London, England.

1y.21-39w47

*Sole Agent for Canada: C. E. Colson, Montreal.*

## JOB PRINTING

Neatness in Style.
Moderation in Charges,
Fulfilment of Promises.
Despatch in Execution.

The REVIEW Job Printing Office has lately added some of the newest and most select styles of Fancy Job Letters to its previously well supplied stock, and is prepared to execute the following, and other classes of PLAIN and FANCY WORK, in the best style

Posters, plain and coloured,
Programmes, in fancy styles,
Circulars, in script or plain types,
Bill-Heads, all sizes and Shapes, on excellent quality of paper,
Business Cards, in beautiful Card Texts, or Script Lettering,
Postal Cards, with Business Notices or Memorandum Headings,
Letter Headings,
Note Headings,
Blank Cheques,
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Pamphlets,
Catalogues,
Law Blanks,

And all and every description of work required to be done in letter press

THE

REVIEW Job Printing Department

Satisfaction given to all customers; charges are as moderate as the cost of getting up good work will allow, and are usually found satisfactory.

The REVIEW Printing Office

is now noted for its punctuality in fulfilling promises, and business men can rely on getting their work at time agreed upon.

THE FACILITIES FOR GETTING OUT

JOB WORK

are ample, and orders are pushed through with vigor so that work can be got out in short time.

Orders From the Country

attended to with promptness, and work forwarded immediately on completion.

NORMAN'S

## ELECTRIC BELT

INSTITUTION.

ESTABLISHED 1874.

These Electro-Curative Belts, Insoles and Trusses are SUPERIOR TO ANY OTHER REMEDY.

And will Cure when all other remedies fail.

Circular and Consultation Free.

CONSTIPATION

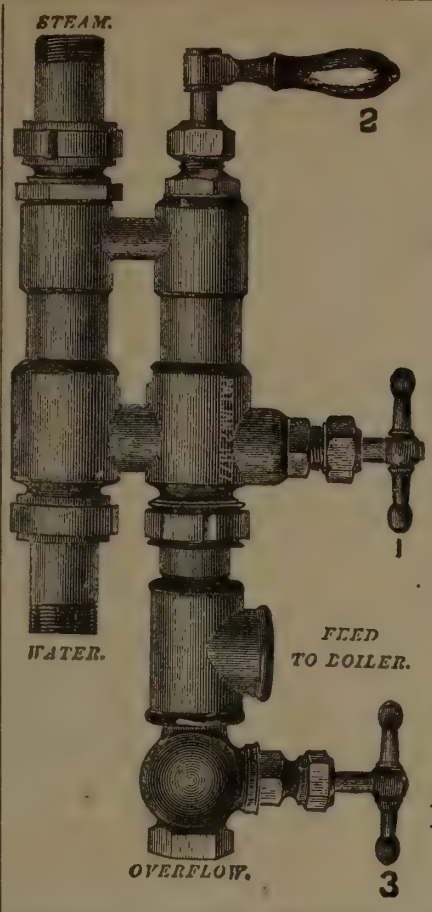
Is entirely overcome by using NORMAN'S ELECTRIC BELTS. No injury can result, and they are pleasant to wear. Try one and be cured. Guaranteed genuine. Circular and consultation free. A. Norman, 4 Queen Street East, Toronto.

PETERBOROUGH, 29th September, 1884.

This is to certify that I have used one of Norman's Electric Shoulder Braces for my boy 7 years of age, for Spinal Curviture, with very beneficial results.

JONAS H. PASHLEY.

For Sale by J. D. TULLY, Agent for Peterborough.

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Best Feeder known for Stationary, Marine or Locomotive Boilers.

The Injector Perfected!

All sizes lift water 25 feet.
No adjustment required for varying Steam Pressures.

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MONTREAL, P.Q. - - CANADA

Manufacturers of Inspirators, Ejectors, and General Jet Apparatus. 1yll

A FULL LINE of all Size Single and Double Belting constantly in stock.

All ORDERS Filled same days as received.

TORONTO

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86 King Street East

*Factory and Warerooms:—2518, 2520 and 2522, Notre Dame Street.*

MONTREAL, QUE.

## Axes & Cross-Cut Saws.

CANADIAN AXES.

Both inlaid and overlaid steels, 10 patterns, from $7.00 upwards per dozen.

AMERICAN AXES.

Both inlaid and overlaid steels eight patterns, from $10.00 upwards per dozen.

SILVER STEEL LANCE-TOOTH CROSS-CUT SAWS.

Warranted to be good temper or will be replaced. Special three square and extra fine cut flat files for these saws.

BLOCKING AND BROAD AXES

Of extra shape and quality. Samples of axe- and saws sent to any address on approval and for selection.

Geo. Stethem

Importer of Heavy and Shelf Hardware. Sole Agent for the Beaty Axe. 6t.17

## FILES- Now's the Time

Collect and Ship them to be

RE-CUT

BEFORE THE SPRING OPENS.

DO NOT WASTE

Your Money on Buying new, when the old ones will do. We pay Freight one way.

SHIP THEM TO-DAY

—TO THE—

ONTARIO FILE CO.

150 FRONT STREET, EAST, TORONTO.

Agents Wanted Everywhere. 12t.8

# Market Reports.

## TORONTO.

*From Our Own Correspondent.*

DEC. 9.—The wintry weather of the past week has made trade quiet. There is still, however, considerable lumber arriving by rail, which must find a market or go to swell the large quantity already piled off by the track side. The piles at the mills are now well thinned out, so that before the advent of spring we may reasonably expect that the quantity in stock here will be materially lessened. The kinds of lumber of which there will be no over stock during this winter will be cutting up 1½ and 2 in. Sash and door factories use up but little clear lumber, as the prices obtained for such work will not warrant them in using such high priced material, and the consequence is that cut up is always in demand. The coarser grades of boards and plank will likely be in excess of the demand. There is a large amount of speculative building going on. This class of work had nearly dropped off, but is on the increase again. Cull scantling and boards is used chiefly in this class of buildings, and answers the purpose well enough if care is used in selecting good culls—dead culls are rarely brought here now, not realizing much over the cost of freight and handling. Retail dealers have had their tempers and horseflesh severely tried for some time past, by reason of the bad state of railway yards; many of those dealers have paid their share for block paving the roads leading to their yards, and now find it of little use, so far as hauling in is concerned, being unable to take out more than half a reasonable load from the car. Railroad companies seem to think that their duty is done when they deliver lumber on their sidings and collect freights therefor. It is hard to say what is the reason, but certain it is that anything is thought good enough for a lumberman. Coal men and others have the best and cleanest sidings given them, from which to haul their goods, and the lumber dealers are left to plough through the mud holes, often axle deep. The solution may possibly be found in the notable fact that lumbermen are proverbially a long-suffering and patient class, but even their good natures may be tried too much.

The last cargo of lumber has left our docks for this season, at least, and navigation may now be considered as closed. Quotations at the yards remain steady and fairly firm, not much cutting on bills for future delivery so far as I am able to learn, and there are so few mills running bill lumber cut to order will remain firm in price.

| | |
|---|---|
| Mill cull boards and scantling | $10 00 |
| Shipping cull boards, promiscuous widths | 12 00 |
| " stocks | 13 00 |
| Scantling and joist, up to 16 ft | 13 0 |
| " " " 18 ft | 14 00 |
| " " " 20 ft | 15 00 |
| " " " 22 ft | 16 00 |
| " " " 24 ft | 17 00 |
| " " " 26 ft | 18 00 |
| " " " 28 ft | 19 00 |
| " " " 30 ft | 20 00 |
| " " " 32 ft | 21 00 |
| " " " 34 ft | 22 50@22 50 |
| " " " 36 ft | 24 00 |
| " " " 38 ft | 27 00 |
| " " " 40 to 44 ft | 30 00 |
| Cutting up planks to dry | 20 00@25 00 |
| " boards " | 20 00 |
| ound dressing stocks | 16 00@18 00 |
| Picks Am. inspection | 30 00 |
| Three uppers, Am. inspection | 35 00@40 00 |

B. M.

| | |
|---|---|
| 1½-inch flooring, dressed | 25 00@30 00 |
| 1½ " " rough | 14 00@15 00 |
| 1½ " " dressed | 23 00@25 00 |
| 1¼ " " undressed | 14 00 |
| 1 " " dressed | 16 00@20 00 |
| 1 " " undressed | 12 00@14 00 |
| ¾ Beaded Sheeting, dressed | 18 00@20 00 |
| Clapboarding, dressed | 12 50 |
| XXX sawn shingles, ₩ M | 2 75@ 2 90 |
| Sawn Lath | 2 25 |
| Red oak | 20 00@25 00 |
| White " | 25 00@30 00 |
| Basswood, No. 1 & 2 | 18 00@20 00 |
| Cherry, No. 1 & 2 | 50 00@60 00 |
| White ash 1 & 2 | 25 00@30 00 |
| Black ash 1 & 2 | 20 00@25 00 |

## CHICAGO.

BY THE CARGO.

The *Nothwestern Lumberman* of Dec. 5th says:—For the week ending Wednesday the port list indicated about 60 arrivals of lumber cargoes, against 80 during the same period last year. On Wednesday a considerable fleet drifted in, the number not being included in our report. Thursday morning there were several loads at the market, but by noon nearly all had been sold. The offerings consisted largely of green inch lumber from the north shore and Menominee, with some pick-ups from other ports. Green inch predominated, and sold hard at former figures. The yard men now have little occasion to buy green lumber. Their wants are mostly confined to dry lumber to go into assortments that are broken. They want desirable dimension and inch lumber that will run to good common boards, and strips that will make fencing. Short length piece stuff is still selling on a basis of $9.50 for green, and will probably close at that figure. Strictly dry piece stuff, if an occasional cargo straggles in, will sell at a relatively high figure. There is no quotable change in shingles, though the season's market for the high priced grades closes a little tame.

At this time last year short green piece stuff sold for $8.50 a thousand, and No. 2 boards and strips at $0 to $11 a thousand; so it will be seen that common lumber all around is fully $1 a thousand higher than it was last year. Yet it is not as high by 50 cents a thousand as the commission men intended to raise it. They boosted hard to force the price of short green dimension to $10, but it stuck 50 cents short and would not budge a notch higher. On the other hand the yard men grumble some because they have had to pay so much for their lumber. The Twenty-second street dealers charge the north side men with keeping prices up all the season, but the latter fling back the impeachment with scorn.

Quotations on lumber and shingles are as follows:—

| | |
|---|---|
| Dimension, short, green | @$9 50 |
| " long green | 12 00@14 00 |
| No. 2 boards and strips | 10 50@12 00 |
| Medium stock | 13 00@15 00 |
| No. 1 stock | 16 00@2) 00 |
| Shingles, standard | 1 90@ 2 05 |
| Shingles, extra | 2 05@ 2 25 |
| Cedar | 2 00@ 2 25 |
| " clear | 2 15 |
| Lath | 1 30@ 1 40 |

AT THE YARDS.

Only a moderate outward movement is now prevailing. The fall trade may be considered past, as indeed it should be, since we are well started in December, though the weather is more like that of October than the early winter. There was less than the usual stocking up during the fall, but such as there was has been accomplished. Hereafter the lumber called for will be to patch up assortments in the country and to supply the yet large consumptive demand in this city and country. The continuance of pleasant weather is favorable to trade, Building permits in large numbers for the season are being daily issued for local construction. This will go on while the weather will permit. If the winter should be mild throughout, or during a greater portion of the time there would be no cessation of active building. Contractors and investors are becoming aware that material is to rise in price, and there is also danger of disturbance in the ranks of labor. For these reasons such building as has been intended for the near future will be pushed forward as rapidly as possible, and an open winter will favor such a design. If the yard dealers desire to urge their winter sales a little, they should exercise their persuasive faculties in impressing the motive indicated on the minds of investors and builders.

The chief inquiry between yards is for 12-inch common boards, and 16 foot fencing. The late advance on 10, 20 and 18-foot 12-inch boards was considered by the dealers who did not attend the trade meeting as being in the right direction, only the thing was a little overdone. The selling price of these sorts of umber is at the top when $16 a thousand is named, though the tendency is upward. First quality of 16-foot fencing is selling at the list, which is saying much, and very encouraging, in consideration of the conditions prevailing during the past season.

Handlers of car strips are looking for an increased demand after January 1st. Inquiries are numerous, though sales have not yet greatly augmented. Most new business of this character will be delayed until the beginning of the new year, when a revival may be expected.

Receipts of lumber, shingles, etc., from Jan. 1st to Dec. 3rd as reported from the Lumberman's Exchange:—

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 20,557,000 | 8,192,000 |
| 1884 | 21,682,000 | 28,816,000 |

FROM JANUARY JAN. 1, 1885, TO DEC. 3, 1885, INCLUSIVE.

| | RECEIPTS. Lumber. | Shingles. |
|---|---|---|
| 1885 | 1,713,624,000 | 747,187,000 |
| 1884 | 1,809,622,000 | 875,769,000 |
| Decrease | 95,398,000 | 128,582,000 |

LAKE RECEIPTS FROM JAN. 1 TO DEC. 3.

| | |
|---|---|
| Lumber | 1,491,765,000 |
| Shingles | 435,318,000 |
| Lath | 49,795,000 |
| Wood, cords | 28,793 |
| Posts | 3,381,772 |
| Railroad ties | 1,823,557 |
| Slabs, cords | 31,264 |
| Bark, cords | 20,162 |
| Poles | 51,806 |
| Spiles | 2,000 |

STOCK ON HAND NOV. 1.

| | 1885. | 1884. |
|---|---|---|
| Lumber & timber | 665,050,130 | 688,057,336 |
| Shingles | 386,319,180 | 321,961,925 |
| Lath | 75,214,168 | 70,742,942 |
| Pickets | 2,789,250 | 1,830,118 |
| Cedar posts | 537,435 | 400,805 |

EASTERN FREIGHT RATES.

FROM CHICAGO AND COMMON POINTS ON CAR LOAD LOTS OF HARD AND SOFT LUMBER.

IN EFFECT NOV. 1.

| | |
|---|---|
| To New York | 35c. |
| Boston | 40c. |
| Philadelphia | 33c. |
| Baltimore | 32c. |
| Washington | 32c. |
| Albany | 32c. |
| Troy | 32c |
| Buffalo and Pittsburgh | 20c. |
| Shenectady | 32c. |
| Wheeling | 20c. |
| Suspension Bridge | 20c. |
| Salamanca | 20c. |
| Black Rock | 20c. |
| Dunkirk | 20c. |
| Erie | 20c. |
| Toronto | 20c. |

## ALBANY.

Quotations at the yards are as follows:—

| | |
|---|---|
| Pine, clear, ₩ M | $53 00@55 00 |
| Pine, fourths | 48 00@ 0 00 |
| Pine, selects | 45 00@47 00 |
| Pine, good box | 22 00@53 00 |
| Pine, common box | 11 00@13 00 |
| Pine, 10-in. plank, each | 00 42@00 45 |
| Pine, 10-in. plank, culls, each | 00 23@00 25 |
| Pine boards, 10-in | 00 28@00 32 |
| Pine, 10-in. boards, culls | 00 16@00 20 |
| Pine, 10-in. boards, 16 ft., ₩ M | 28 00@32 00 |
| Pine, 12-in. boards, 16 ft | 28 00@32 00 |
| Pine, 12-in. boards, 13 ft | 28 00@00 00 |
| Pine, 1¼ in. siding, select | 40 00@43 00 |
| Pine, 1¼-in. siding, common | 15 00@18 00 |
| Pine, 1-in. siding, select | 40 00@42 00 |
| Pine, inch siding, common | 13 00@15 00 |
| Spruce, boards, each | 00 00@00 16 |
| Spruce, plank, 1¼-in., each | 00 00@00 20 |
| Spruce, plank, 2-in., each | 00 00@00 30 |
| Spruce, wall strips, each | 00 12@00 12 |
| Hemlock, boards, each | 00 00@00 14 |
| Hemlock, joist, 4x6, each | 00 00@00 32 |
| Hemlock, joist, 2½x4, each | 00 00@00 14 |
| Hemlock, wall strips, 2x4, each | 00 00@00 11 |
| Black walnut, gook, ₩ M | 100 @120 00 |
| Black waluut, ⅝ inch | 80 00@90 00 |
| Black walnut, ¾ inch | 00 00@85 00 |
| Scaymore, 1-inch | 28 00@30 00 |
| Scaymore, ⅝-inch | 21 00@23 00 |
| White wood, 1-inch and thicker | 38 00@40 00 |
| White wood, ⅝-inch | 28 00@30 00 |
| Ash, good, ₩ M | 40 00@43 00 |
| Ash, second quality, ₩ M | 25 00@30 00 |
| Cherry, good, ₩ M | 60 00@85 00 |
| Cherry, common, ₩ M | 25 00@30 00 |
| Oak, good, ₩ M | 40 00@43 00 |
| Oak, second quality, ₩ M | 20 00@25 00 |
| Basswood, ₩ M | 25 00@30 00 |
| Hickory, ₩ M | 40 00@40 00 |
| Maple, Canada, ₩ M | 28 00@30 00 |
| Maple, American, per M | 26 00@28 00 |
| Chestnut, ₩ M | 38 00@40 00 |
| Shingles, shaved, pine, ₩ M | 0 00@ 6 50 |
| " 2nd quality | 0 00@ 5 00 |
| " extra, sawed, pine | 4 30@ 4 50 |
| " clear, " | 0 00@ 3 00 |
| " cedar, mixed | 0 00@ 3 30 |
| " cedar, XXX | 0 00@ 0 00 |
| " hemlock | 2 25@ 2 3[illegible] |
| Lath, hemlock, ₩ M | 0 00@ 2 13 |
| Lath, spruce, " | 0 00@ 2 25 |

## OSWEGO, N.Y.

*From Our Own Correspondent*

No change in quotations; trade is very quiet.

| | |
|---|---|
| Three uppers | $42 00@46 00 |
| Picking | 32 00@35 00 |
| Cutting up | 24 00@26 00 |
| Fine Common | 22 00@25 00 |
| Common | 14 00@18 00 |
| Culls | 11 00@14 00 |
| Mill run lots | 16 00@22 00 |
| Sidings, selected, 1 in | 30 00@35 00 |
| " 1¼ in | 32 00@36 00 |
| Mill run, 1x10, 13 to 16 ft | 16 00@21 00 |
| Selected | 21 00@24 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1¼x10 | 17 00@20 00 |
| Selected | 21 00@30 00 |
| Shippers | 14 00@16 00 |
| Mill run, 1 & 1¼ in, strips | 15 00@18 00 |
| Selected | 22 00@30 00 |
| Culls | 11 00@13 00 |
| 1x7 selected for clapboards | 25 00@35 00 |
| Shingles, XXX, 18 in. pine | 3 50@ 4 00 |
| XXX Cedar | 2 80@ 3 00 |
| Lath 1¼, No 1 | 1 80@ 1 90 |
| No 2 | 1 00@ 1 25 |

## BUFFALO.

We quote cargo lots:—

| | |
|---|---|
| Uppers | $45 00@46 00 |
| Common | 17 00@18 50 |
| Culls | 12 50@13 00 |

## TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

| | |
|---|---|
| Three uppers | $42 00@44 00 |
| Common | 18 00@24 00 |
| Culls | 10 00@13 00 |

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c measured and culled to date:—

| | 1883. | 1884. | 1885 |
|---|---|---|---|
| Waney White Pine | 3,781,742 | 2,198,547 | 2,876,753 |
| White Pine | 7,405,523 | 3,707,159 | 2,820,045 |
| Red Pine | 498,111 | 327,735 | 73,766 |
| Oak | 1,916,322 | 772,260 | 1,566,968 |
| Elm | 309,531 | 657,919 | 1,018,932 |
| Ash | 262,448 | 451,984 | 287,596 |
| Basswood | 2,244 | 4,544 | 96 |
| Butternut | 1,118 | 2,134 | 3,265 |
| Tamarac | 37,736 | 19,289 | 3,622 |
| Birch & Maple | 138,803 | 202,446 | 381,085 |
| Spars | — pcs | 41 pcs | 17 pcs |
| Std. Staves | 680.4.3.26 | 93.6.1.12 | 144.2.1.10 |
| W. I. Staves | 663.3.3.21 | 260.8.0.19 | 185.9.3.25 |
| Brl. Staves | 115.7.0.15 | 9.7.1.0 | 209.2.0.24 |

JAMES PATTON,
Supervisor of Cullers.

Quebec, Nov. 20.

## LONDON.

The *Timber Trades Journal* of Nov. 28th says:—If trade is beginning to hold up its head again, and to shake off the lethargy that has so bowed it down of late how is it that the dock returns of the delivery department show no sign of more activity in the timber trade? The retrogression in comparison of last year at same period shows no abatement. In sawn and planed stuff we are again above 1,000 standards behind, and more than 600 loads of hewn timber, also on the week, at the Surrey Commercial Docks alone. When the trade see the scale going the other way, and not till then, we fear, will they believe that we have turned the corner.

As far as the London wood market is concerned we cannot yet detect any sign of revival. Prices at the Baltic saleroom show, if anything, a tendency to weakness, or remain, at best, about stationary. It can, however, hardly be expected that buyers will be disposed to operate in the very midst of a political struggle, and we think that those sellers are acting wisely who hold themselves altogether aloof from the market at the present juncture. In a few weeks' time a fairly accurate idea may possibly be formed as to the course prices will take, and we shall refrain until then from speculating on the probability of a rise or fall in values. In any case the task of buying seems likely to prove a difficult one, as so many contending factors have to be taken into account. On the one hand, it is contended by sellers that, apart from the possibility of a general revival of trade, prices free on board are so unremunerative that a rise in values must be established to enable shippers to continue working their mills, even on a modified scale. On the other hand, buyers state their belief that the present hand to mouth system of business must continue for some time, and they point to the fact that the building trade, both in London and the country, has been overdone, terraces of houses in many places remaining uninhabited.

The general trade of the country certainly shows some slight indication of improvement, although the reports from manufacturing districts are somewhat conflicting. In iron, however, the feeling is decidedly better, and Scotch pig has been very firm, a considerable quantity having changed hands during the last week in Glasgow, while a larger business has been transacted at Middlesbrough than has been the case for some time past. This activity springs chiefly from speculative purchases, based on the undeniable improvement in the prospects of trade ln the United States, to which we alluded in our last issue, the upward tendency being, moreover, assisted to some extent by the agitation in the colleries for a rise in wages. A fair quantity of pig iron has been actvally taken for American account, and it is believed that an order for 10,000 tons of hematite pig iron has been placed at Barrow, while the shipments

# Wrought Iron Shanty Cook Stoves

*The Best Article Ever Offered to the Trade.*

I have much pleasure in drawing attention to my **WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use.** These stoves are made of **Heavy Sheet Iron,** the top and lining of the fire-box being of **Heavy Cast Metal** and all the connecting parts of substantial **Wrought Iron Work.** The dimensions of these Stoves are as follows:

## SINGLE OVEN STOVE

Top surface contains six 10-inch holes, with ample room between, and one oven 28 x 24 x 19. Fire box takes 28-inch wood.

## DOUBLE OVEN STOVE

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 28 x 24 x 19. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my **Wrought Iron Cook Stoves** since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

**The Best Stove I have ever Used.**

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

**The Stove for Lumbermen.**

PETERBOROUGH, June 1st 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, J. M. IRWIN

In addition to the above I can refer you to the following lumber firms who use my Wrought Iron Range exclusively in their camps:—

THE GEORGIAN BAY LUMBER CO.....Waubaushene
THE LONGFORD LUMBER CO.....Longford Mills
MESSRS. GILMOUR & CO.....Trenton and Ottawa
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**EVERY STOVE GUARANTEED.**

All the necessary TINWARE and CUTLERY for Shanties Supplied at the Lowest Prices.

# ADAM HALL, Peterborough.



## THE HENDERSON LUMBER CO. Limited.

DAVID H. HENDERSON, *President;* NORMAN HENDERSON, *Vice-President;* CHAS. H. WALTERS, *Sec-Treas.*

**Dealers in, and manufacturers of, Dimension and Bridge Timber, Sawn Lumber, Clapboards, Shingles and Lath. Packing Cases and Boxes a Specialty.**

OFFICE, MILLS AND YARDS: 342 to 396 William Street, MONTREAL, and at ROXTON FALLS, P. Q.


from the Tees show every prospect of continuous improvement. As yet, however, there has been no increase in the demand for home consumption, and the iron works have no more than a normal quantity of orders on hand. Until the home trade improves, the present firm tone in the pig iron market cannot be regarded with entire confidence.

Thursday was a very unfavorable day for a sale, the wet literally coming down in bucketfuls, and those who had not previously taken a trip down to the docks to inspect the parcels they contemplated buying would have to rely entirely on the brokers' sale report. The seats were fairly well occupied, and from the appearance of the room pretty active proceedings might have been expected. The fact was, however, that the wet, which continued throughout the day drove many into the saleroom who would otherwise have patronized the approaches.

Prices throughout were not very tiptop, but the major portion of the goods submitted without reserve had nothing specially choice about them. For the pine boards ex Baumwall there was some good bidding though the prices realized read low. The classification of the 1st Ottawa pine was not very strict, and they fetched about 2nd quality price. For the Montreal pine ex Suffolk the competition was not over brisk. The first lot of this parcel some 2x12 to 16 in. 2nd bright, hung at £9 10s., advancing by slow degrees to £11, at which they dwelt for some time, being eventually knocked down at this price. The 2x10 also experienced similar treatment, but fell at 5s., on the opening bid, the room evidently not being very anxious about them.

The battens from this port were very unfavorably treatod; 2nd bright pine of any dimensions must be considered extraordinarily cheap under £9 if the quality is anything like the usual mill assorting.

Some there were who inclined to the idea that the elections, from the quiet way they are now conducted would have no influence on trade one way or the other, but we do not share that view. As far as the indications in the saleroom went, they pointed to a very serious influence being exercised by the political contest now going on, and considerable excitement was engendered by tho cheering from the adjacent Baltic which rang through the building at intervals as the tape brought intelligence of the result of the metropolitan elections.

SHILOH'S COUGH and Consumption Cure is sold by us on a guarantee. It cures consumption. For sale by Ormond & Walsh, druggist Peterborough.


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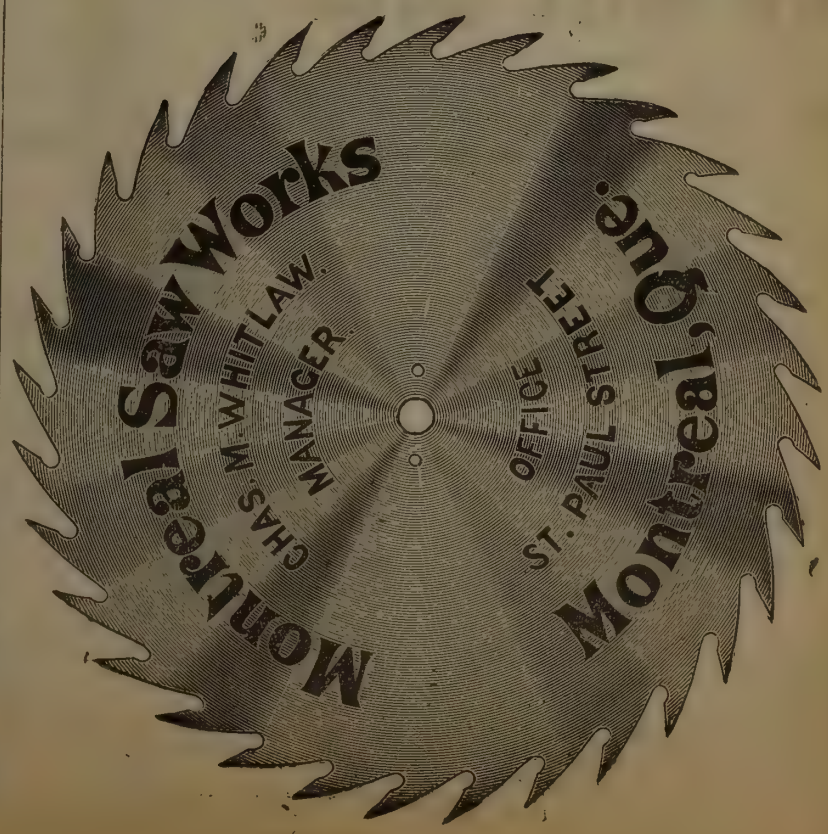


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***Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.***

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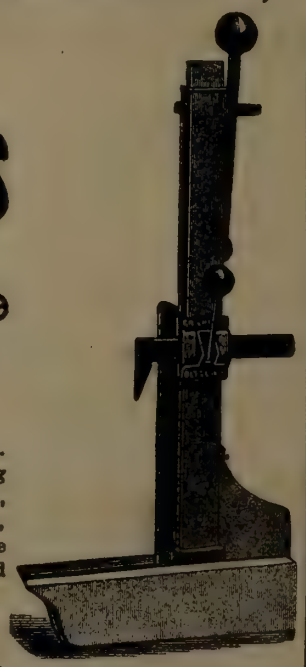
## The Sawyer's Favorite

**For Holding Logs upon a Saw Mill Carriage while being Sawn into Lumber.**

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



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Do not buy any Belting unless with DIXON'S PATENT LAP JOINT. It will last longer and do more service than any other. Please note the address. 70 KING ST. EAST, and send for Circulars and Latest Discounts.

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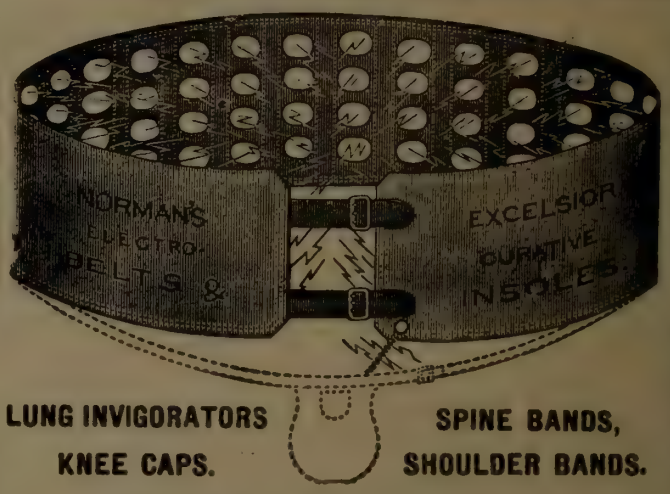


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This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
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and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

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***N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination***

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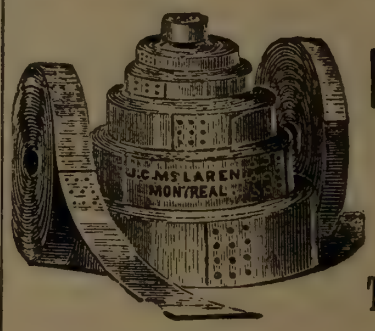


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*EVERY BELT GUARANTEED*

The Best Mills in the Country use it.

QUALITY *is what I aim at, the result being the Generous Support of all Manufacturers.*

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It has a circulation among saw mill owners, manufacturers, lumber and timber dealers and all classes connected with the timber business.

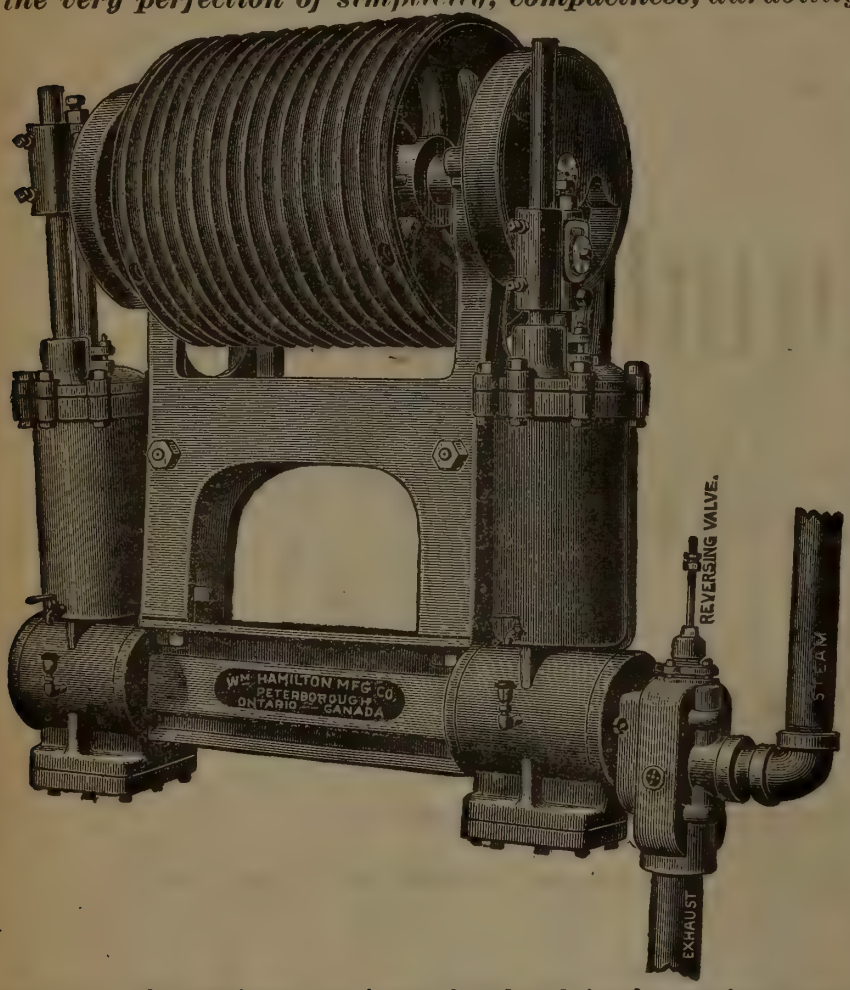
Examine the field, count the cost, and you will at once decide that the CANADA LUMBERMAN is the

*———CHEAPEST, BEST, MOST RELIABLE and ONLY TRUE MEDIUM———*

for placing your goods or wares before the saw-mill men and lumber and timber dealers of the Dominion.

# CUNNINGHAM'S
# PATENT OSCILLATING TWIN ENGINE
## FOR STEAM FEED IN CIRCULAR MILLS WITH RACK OR ROPE.

***This Engine has practically but two moving parts, aside from cranks and shafts. The whole array of eccentrics, valves, valve rods, connecting rods, cross heads, slides, levers, rock shafts, bell cranks, etc., is done away with, and the very perfection of simplicity, compactness, durability and cheapness attained.***




The above engraving illustrates the Twin Engine, 10x16, for Rope Feed, for Saw Mill Carriages. The spool is 27 in. diameter, 30 in. face, is grooved 2 in. pitch for 1½ in. rope. The shaft is steel, 4½ in. diameter, with disk cranks. No connecting rods, eccentrics or valve rods to get loose and out of order. The ports are in the trunions, and worked by an oscilliation of the cylinders, and are held in their place in the downward motion by a steam cushion below. The sawyer's valve is a perfect balance, and by moving this valve the engine can be reversed, stopped or started almost instantaneously if necessary, as the sawyer has perfect control of it by his lever either to go fast or slow. Should the sawyer let go of his lever either by mistake or any other cause, it is balanced so that the valve will come to the centre and cut the steam off both cylinders and stop the feed. When standing, the lever is locked or fastended, so that is is impossible for it to start off itself. The engine stands upright below the carriage, and bolted to two upright beams, placed on the mill for the purpose. When a rack is preferred in place of the rope, we put on a steel wheel 30 in. in diameter, and the engine placed high enough to work into the rack on carriage bar, or if the beams come in the way, an idler wheel can be used between engine and rack segs; or, the engine can be placed at a distance and have a shaft from it to the carriage; or it can be placed in the engine room, where it is under the control of the engineer for oiling, thence by shaft and pinion to carriage rack bars. These engines are well adapted for cutting long logs, or where the logs are mixed, the advantage of this feed will be apparent to mill men. When the carriages are used in two or more sections, the coupling and uncoup ling of each section is quick and simple.

There were two of these feeds working this summer and giving the best of satisfaction, one with rope feed at James Playfair & Co's Mill, Sturgeon Bay, near Waubaushene, and one at the new mill furnished by us to Francis Carswell & Co., at Calabogie Lake, on the Kingston and Pembroke R. R. This mill is working with the Rack and Pinion feed, and drops from fifteen to seventeen stock boards per minute. We have also sent one to the Rathbun Company, Deseronto, to put in to feed their heavy Circular Mills. They will also commend themselves for various other cases, especially for running Elevators, hoisting Engines, and wherever a simple and easily reversible motion is required.

## We would also call attention to our Improved Band Saw-Mill for cutting logs

☞ ***We guarantee this to be the best Mill of its kind got up, and would ask any one wanting a good Band Saw-Mill to communicate with us. We would also call the attention of Mill Men to our new IRON GANGS, CIRCULAR MILLS and MILL MACHINERY. For further information, prices, &c., address the Manufacturers,***

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# NORTHEY & CO'S STEAM PUMPS, TORONTO, ONT.

*Pumps for Fire Protection a Specialty.*

## SAVE INSURANCE.

***Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.***

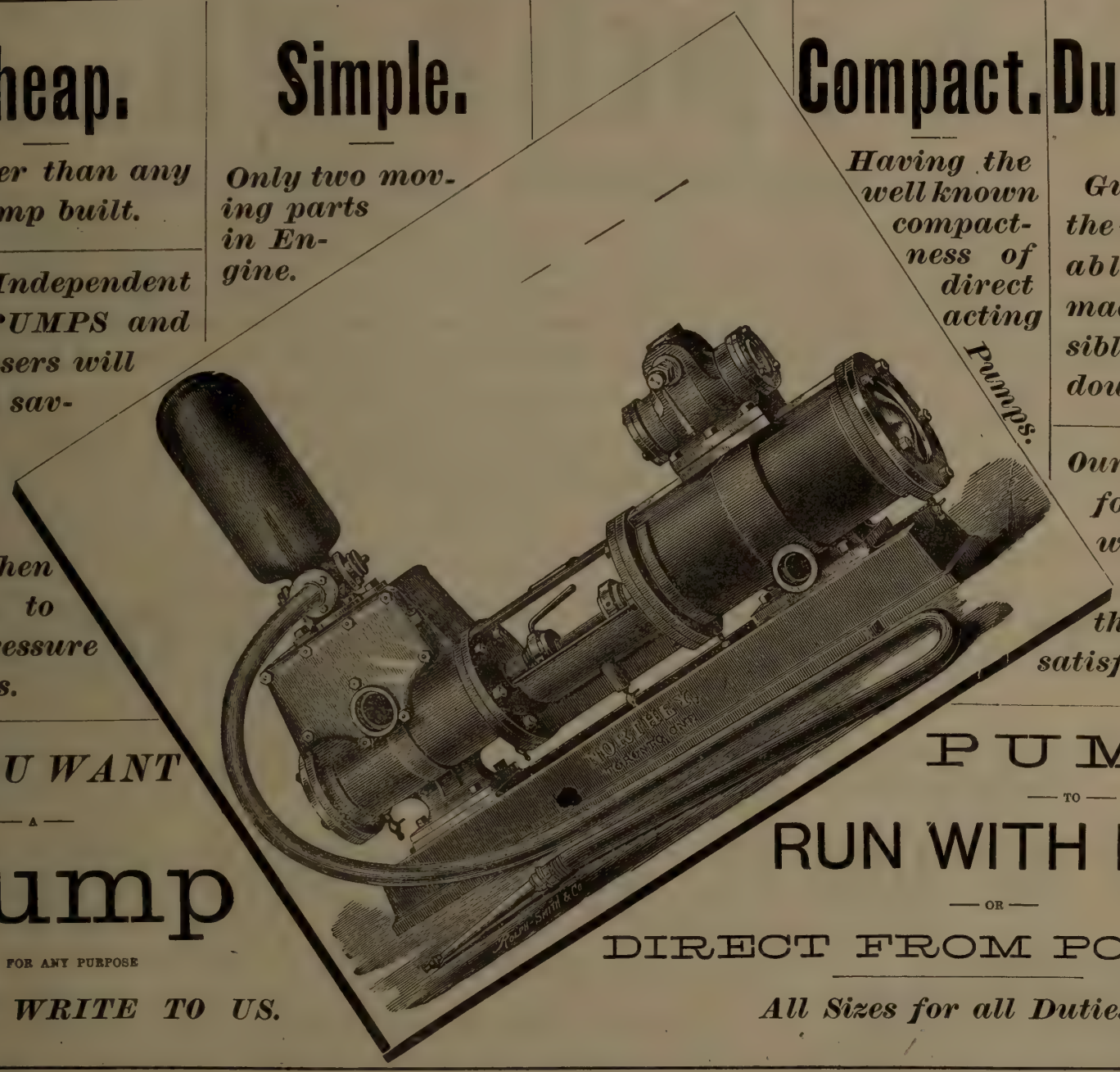
**Cheap.**

*Cheaper than any Pump built.*

*Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.*

**Simple.**

*Only two moving parts in Engine.*

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*Having the well known compactness of direct acting Pumps.*

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*Guaranteed the most durable Pump made; impossible to break down.*

*Our PUMPS for general water supply give the greatest satisfaction.*

*IF YOU WANT*

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FOR ANY PURPOSE

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**RUN WITH BELT**

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*All Sizes for all Duties.*

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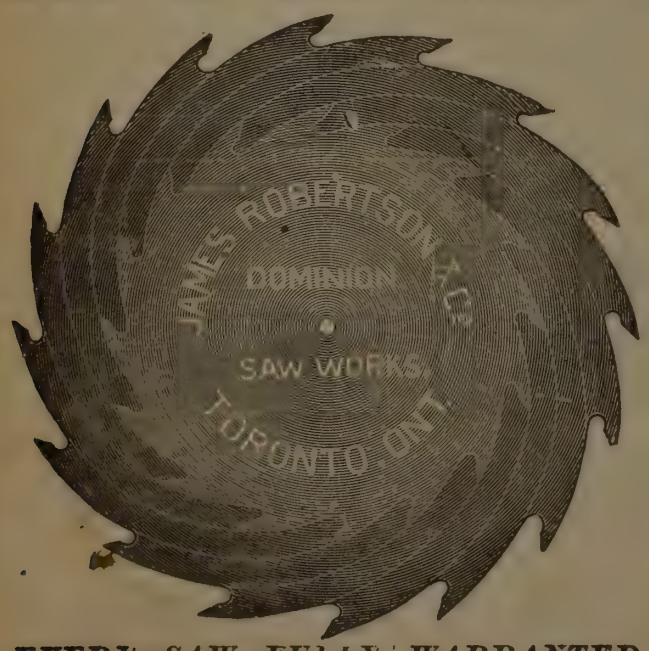


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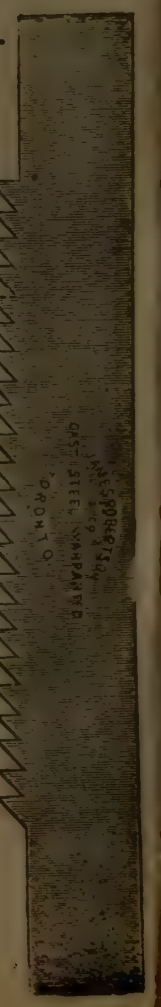

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